VENDOR DIRECTORY

DEVELOP AGRICULTURAL
BIOGAS RECOVERY
SYSTEMS



VENDOR DIRECTORY:

DEVELOP AGRICULTURAL BIOGAS RECOVERY SYSTEMS



The AgSTAR Program produces this Vendor Directory to assist livestock producers and others involved in developing anaerobic digestion systems to identify consultants, designers, developers, equipment vendors, and other providers of biogas energy services.

If you are in the planning stages of a biogas recovery system, we recommend you use the Vendor Directory in combination with the AgSTAR Handbook (available on the AgSTAR website at www.epa.gov/agstar) as project development tools to begin the initial project planning process to increase the potential for success.

Commodity Organizations represent the interests of a specific crop or livestock commodity. Commodity organizations generally are involved in marketing or lobbying activities.

Consultants provide a variety of services related to biogas recovery systems, including feasibility analyses (e.g., technical, economic, and financial), nutrient management planning, system design, and environmental impact and regulatory assessments.

Developers design and install biogas recovery systems for livestock and other industries. In many cases, these are "turn-key" system developers who provide consultant services as part of the development package.

Financing Specialists provide loans for biogas projects, funding on-farm biogas systems for profit, and brokering the sale of carbon offsets and renewable energy certificates.

Energy Service Providers are independently owned municipal or co-operative electricity or natural gas companies that have an interest in providing biogas energy to customers.

Manufacturers/Distributors include entities that manufacture, distribute, and in some cases install equipment used in biogas recovery systems, including covers, engines, tanks, and other system components.

Publishers distribute journals and reports of interest to farm owners and others interested in biogas recovery systems.

Universities are educational institutions, including land grant colleges and universities, involved in developing and demonstrating on-farm biogas recovery systems and technologies.

The Vendor Directory is not all inclusive. We will update the Vendor Directory regularly as we learn of new businesses in the livestock waste market. These updates will be posted on the AgSTAR website, along with other AgSTAR products.

If you wish to be included in the Vendor Directory, or want to update any information, please visit:

www.epa.gov/agstar/contact.html.

The information in this Directory was provided by the listed organizations, and EPA does not guarantee the accuracy of the information. Inclusion in this Directory does not imply endorsement of any listed organization. All users of this Directory should employ due diligence before entering into a contract with any of the listed organizations.

CONTENTS:

Commodity Organizations	1
Consultants	2
Developers	18
Energy Service Providers	34
Financing Specialists	35
Manufacturers/Distributors of Covers	38
Manufacturers/Distributors of Engines	42
Manufacturers/Distributors of System Components	47
Manufacturers/Distributors of Tanks	58
Publishers	59
Universities	60

AgSTAR Vendor Directory 2015



Commodity Organizations

BEST Agri-Marketing, Inc.

Todd Soares

Tel: (559) 733-9777

Year Established: 1992

3901 S. Mooney Blvd. Suite E

Fax: (559) 733-9774

Visalia, CA 93277

Fax: (559) 733-9774

of Farm Projects: N/A

of Biogas Projects: N/A

Website: www.bestagrimarketing.com

BEST Agri-Marketing, Inc. is a bulk cattle feed merchandising company with interests in environmental issues, and biogas projects. It also maintains a resolution department for patrons.

Dairy Quality Center

Keith Carlson

Rot Stratford, IA 50249

Tel: (515) 838-2793

Year Established: 1994

of Farm Projects: N/A

of Biogas Projects: N/A

Website: www.agri-ed.com

The Dairy Quality Assurance Center provides national publicity to dairy farmers.

Devlar Energy Marketing, LLC

David DeVooghtTel: (303) 683-4242Year Established: 2005384 Inverness PkwyFax: N/A# of Farm Projects: N/ASuite 150Email: david@devlar.com# of Biogas Projects: 1

Englewood, CO 80112 Website: www.devlar.com

Devlar Energy Marketing, LLC (Devlar) buys and sells physical natural gas and crude oil nationwide with a focus in the Rocky Mountain West. Devlar can assist biogas developers and purchasers with all their gas transport needs. Specifically, Devlar can transport upgraded biogas from farm to end user nationwide. Devlar's gas transport capabilities can minimize biogas transportation costs.

Missouri Pork Producers Association

Don Nikodim

Tel: (573) 445-8375

Year Established: 1956
6235 W. Cunningham Drive
Fax: (573) 446-2398

Columbia, MO 65202

Fax: (573) 446-2398

of Farm Projects: N/A
of Biogas Projects: N/A

Website: www.mopork.com

The Missouri Pork Association is an organization focused on agricultural commodities.

South Shore Clean Cities

Carl Lisek Tel: (219) 644-3690 Year Established: 1997
9800 Connecticut Drive Fax: N/A # of Farm Projects: 3
Crown Point, IN 46307 Email: clisek@southshorecleancities.org # of Biogas Projects: 3

Website: www.southshorecleancities.org

South Shore Clean Cities is a U.S. Department of Energy nonprofit that promotes alternative fuels. It is also a Smartway Affiliate.

AgSTAR Vendor Directory 2015



Consultants

Acterra Group, Inc.

Tel: (800) 289-7371 Tad Cooper Year Established: 1958 Fax: (319) 377-0075 P.O. Box 160 # of Farm Projects: 1 Marion, IA 52302 Email: tad@acterragroup.com # of Biogas Projects: 3

Website: www.acterragroup.com

Acterra Group, Inc. provides consulting and construction services to the biogas industry.

Advance Design Consultants, Inc.

Tel: (408) 297-1881 Renato O'Neal Year Established: 1984 998 Park Avenue # of Farm Projects: N/A Fax: (408) 294-3186 San Jose, CA 95126 # of Biogas Projects: 5 Email: renato@adcengineers.com

Website: www.adcengineers.com

Advance Design Consultants, Inc. (ADC) is a leader in meticulous design and engineering for the public and private sectors. Their dedication to creative problem solving and exemplary client service using "Advance" Technology makes them a trusted and repeated partner to its clients. Their attention to details shows in the fact that they have less than 1% in construction change orders. Since 1984, ADC has been providing not only engineering and detail designs, but quality facility surveys, preparation of studies, permitting process cost estimates, and construction support services. ADC engineers are dedicated to providing the very best design solutions from initial design to final completion to fulfill your company's needs.

Agricultural Engineering Associates, Inc.

John A. George, P.E. Tel: (620) 756-4600 Year Established: 1974 P.O. Box 4 # of Farm Projects: 20+ Fax: (620) 756-1000 Uniontown, KS 66779 Email: johng@agengineering.com # of Biogas Projects: 20+

Website: www.agengineering.com

Agricultural Engineering Associates, Inc. is a broad based engineering firm with four decades of national and international experience. Its focus is on systems integration, sand separation, manure solids separation, and processing. The company has a USDA qualified technical service provided systems design and uses Comprehensive Nutrient Management Plans (CNMP).

Agriment Services, Inc.

Year Established: 1994 Tel: (252) 568-2648 Geno Kennedy P.O. Box 1096 # of Farm Projects: N/A Fax: (252) 568-2750 Beulaville, NC 28518 Email: agrimentservices@yahoo.com # of Biogas Projects: N/A

Website: www.agrimentservices.com

Agriment Services, Inc. was founded in 1994 to administer technical assistance to producers as they cope with transition regarding the regulatory process. As a waste management consulting firm Agriment Services is prepared to confront transitions related to the needs of producers. Since the inception of the company, Agriment Services has assisted hundreds of swine and poultry producers throughout the Midwest, North Carolina, and Virginia, with one common goal in mind, "Remaining in Compliance." Agriment Services has over 16 years of experience in the field of animal waste management and is on the cutting edge of animal waste management systems.



Agri-Waste Technology, Inc.

Lawson M. "Mac" Safley, Jr.

Tel: (919) 859-0669

Year Established: 1984

5400 Etta Burke Court

Fax: (919) 233-1970

of Farm Projects: 6

Raleigh, NC 27606

Email: mmottern@agriwaste.com

of Biogas Projects: 3

Website: www.agriwaste.com

Agri-Waste Technology, Inc. (AWT) is licensed to provide engineering services in 38 states throughout the country. It maintains a full-time staff consisting of engineers, agronomists, licensed soil scientists, Technical Service Providers (TSP), and Geographic Information System (GIS)/Global Positioning System (GPS) mapping specialists. Over the past several years, AWT has worked effectively with over 350 producers in developing Comprehensive Nutrient Management Plans (CNMP) for the Natural Resources Conservation Service (NRCS) in various states. AWT also has specialized experience and technical competence in manure nutrient management, designing, handling, storage, and transfer. AWT has been certified through the Chicago Climate Exchange (CCX) as an approved verifier for greenhouse gas offset projects. AWT has significant experience with digester projects including design specifications, greenhouse gas offsets consulting, and carbon credit verifications.

Applied Technologies, Inc.

Kristin Taormina

Tel: (262) 784-7690

Year Established: 1986

16815 W. Wisconsin Avenue

Fax: (262) 784-7690

of Farm Projects: 15

Brookfield, WI 53005

Email: kmtaormina@ati-ae.com

of Biogas Projects: 35

Website: www.ati-ae.com

Applied Technologies, Inc. (ATI) is an engineering design and consulting firm that has designed numerous anaerobic contact process systems for manure digestion. ATI also co-sponsored several seminars throughout the last 20 years on the anaerobic treatment of agricultural and high-strength wastes.

BDS Technologies, Inc.

Taoreed O. Badmus / Freddie
Guerra
Fax: (214) 747-2500
Year Established: 1994
of Farm Projects: N/A
11325 Pegasus Street, E-200

Email: tbadmus@bdstechnologies.com
of Biogas Projects: 1

Dallas, TX 75238

Website: www.bdstechnologies.com

BDS Technologies Inc. provides turn-key solutions to clients that include feasibility studies, permitting, engineering and design, construction, and start-up of biogas recovery systems.

BEST, LLC

Craig Frear Tel: (208) 413-1180 Year Established: 2007
645 N. Grand Avenue Fax: (509) 335-2722 # of Farm Projects: N/A
Pullman, WA 99163 Email: king.keving@gmail.com # of Biogas Projects: N/A

Website: N/A

BEST provides consultant services related to co-digestion, digester related issues, and nutrient recovery process.



BioGreen Engineering, LLC

Charlie Ramos

Year Established: 2008 Tel: (407) 437-6194 405 Macarthur Drive # of Farm Projects: 720 Fax: N/A Orlando, FL 32839

of Biogas Projects: 725 Email: cramos@biogreenengineering.com

Website: www.biogreenengineering.com

BioGreen Engineering LLC is a U.S.-based company founded in 2008, with a mission to promote renewable energy generation via sustainable greenhouse gas (GHG) reduction and anaerobic digestion waste-to-energy projects. It is a consulting firm specializing in technical and regulatory assistance. It provides clients with a unique combination of full-cycle project management, in-depth regulatory knowledge, and hands-on operational experience in GHG emission reduction and anaerobic digestion projects.

BioWorks Energy, LLC

Chad Antle

Year Established: 2009 Tel: (740) 972-2499 P O Box 773 # of Farm Projects: 1 Grand Blanc, MI 48480 Fax: N/A # of Biogas Projects: 5 Email: chad.antle@bioworksenergy.com

Website: www.bioworksenergy.com

BioWorks Energy provides engineering and operational support to proposed and existing digester systems and specializes in knowledge of day to day operations, co-digestion and overall process management.

Brendle Group

226 Remington Street, Suite 3 Year Established: 1996 Tel: (970) 207-0058 # of Farm Projects: 15 Fort Collins, CO 80524 Fax: (970) 207-0059

of Biogas Projects: 20 Email: info@brendlegroup.com

Website: www.brendlegroup.com

Brendle Group is an environmentally focused engineering consulting firm that leads by example, inspiring and empowering people to make thoughtful choices about the resources they use and helping them create realistic road maps for sustainability. Founded in Fort Collins, Colorado in 1996. Brendle Group serves clients nationwide, leveraging the strength of what its clients do well with their sincere desire to do more for people, profit, and planet. Brendle Group offers years of experience designing, building, and operating on-farm anaerobic digesters. Expertise includes feedstock analysis, preliminary design, permitting and financing support, design review, and operational guidance. Brendle Group staff conducted numerous feasibility studies and performed technical and economic due diligence of European digester technologies.

Bridgestone Associates, Ltd.

Tel: (610) 388-6191 Year Established: 1988 Martin C.T. Anderson P.O. Box 1299 # of Farm Projects: 1 Fax: (610) 388-0394 Chadds Ford, PA 19317 # of Biogas Projects: 30 Email: mcta@brdgstn.com

Website: www.brdgstn.com

Bridgestone Associates are consultants in the evaluation, design, financing, construction, and operations of animal manure anaerobic digestion, disposal facilities, and renewable energy projects.



Carbon Solutions America

Tel: (561) 953-8960 Year Established: 2006 Alex Hernandez # of Farm Projects: 1 10 Fairway Drive, #114 Fax: (561) 953-8961 Deerfield Beach, FL 33441 # of Biogas Projects: 4 Email: alex@emailcsa.com

Website: www.carbonsolutionsamerica.com

Carbon Solutions America (CSA) is a climate change consulting company with a focus on greenhouse gas reduction offsets. It provides a cradle to grave approach in the commercialization of carbon credits.

Cavanaugh & Associates, P.A.

Tel: (910) 392-4462 Year Established: 1995 William Simmons Fax: (910) 392-4612 # of Farm Projects: 7 1904 Eastwood Road, Suite 205 Email: gus.simmons@cavanaughsolutions.com Wilmington, NC 28403 # of Biogas Projects: 1

Website: www.cavanaughsolutions.com

Cavanaugh & Associates provides engineering, utility services, surveying, site development, wastewater treatment, anaerobic digestion, and consulting services.

CEM Engineering

Martin Lensink, P.E. Tel: (905) 935-5915 Year Established: 2001 # of Farm Projects: 7 26 Hiscott St. Ste. 201 Fax: (905) 935-7878 St. Catharines, Ontario # of Biogas Projects: 18 Email: info@cemeng.ca

Canada L24 1C6 Website: www.cemeng.ca

CEM Engineering provides the following services: energy audits; Proof-of-Concept Assessments (POCA) (both technical and economic); identification and implementation of Energy Management Opportunities (EMO); sub-metering of gas, power, and thermal use (within load centers); feasibility studies (including detailed financial analysis); capital cost estimates; conceptual and preliminary engineering (including high voltage electrical interconnect); preparation of design-build, turn-key specifications and bid evaluations; owners-engineer services (such as due diligence and fatal flaw analysis); implementation alternatives (risk/reward, construction, financing, fuel management and procurement); short-circuit analysis, arc flash studies, and protective device coordination using EasyPower® software.

Chesterfield Associates

Sylke [Silka] Chesterfield Tel: (518) 632-4530 Year Established: 1995 # of Farm Projects: N/A 32 Clearview Terrace Fax: (518) 283-1287 Rensselaer, NY 12144 # of Biogas Projects: N/A Email: sc@caimc.com

Website: caimc.com

Chesterfield Associates has been active in the biogas arena since 2001. Chesterfield Associates assists its clients in their marketing and communications efforts. They facilitate cross-cultural communications; represent their clients at industry events; establish and maintain industry and customer relationships; assist in the development of projects; educate interested parties; engage in grant writing; manage grant applications; and provide other marketing and communication activities.

Cincas International

Year Established: 1978 Ben Cruz Tel: (619) 520-0733 P.O. Box 81163 Fax: (619) 295-6055 # of Farm Projects: 27 San Diego, CA 92138 # of Biogas Projects: 14 Email: bcruz92312@aol.com

Website: N/A

Cincas International exports technology and equipment to the agro industries of Mexico and other countries.



Clean Trade Group LLC

Tel: (703) 835-9334 Year Established: 2008 **Brett Jackson** # of Farm Projects: N/A 2020 North 14th Street Fax: N/A Suite 700 # of Biogas Projects: N/A Email: brettj@cleantradegroup.com

Arlington, VA 22201 Website: N/A

Clean Trade Group (CTG) is a carbon asset consultancy. It works with livestock owners to document, develop, and commercialize offset credits arising from methane avoidance projects.

Climate Options group

Charles Brasor Tel: (202) 436-9886 Year Established: 2007 P.O. Box 38378 Fax: N/A # of Farm Projects: 4 Baltimore, MD 21231 Email: cbrasor@climateoptionsgroup.com # of Biogas Projects: N/A

Website: www.climateoptionsgroup.com

Climate Options group (COg) offers a diverse range of services including project identification, management, design, and engineering. Services target the mandatory and voluntary markets, which ultimately lead to the generation of carbon credits to be sold in the global markets. COg works closely with companies in both the private and public sectors throughout the developed and the developing world to help find practical, efficient, and value-added solutions that mirror environmental expectations of both the present and future. COg staff has helped register more than 100 Clean Development Mechanism (CDM) projects globally and have successfully worked with United Nations-certified Designated Operation Entities (DOE), COg employees have managed projects that significantly reduced air pollution in the United States via implementation of emission control devices, best management practices, and efficiency improvements at public and private industries throughout the United States.

Conestoga-Rovers & Associates

Tel: (888) 572-5885 Year Established: 1976 Jason Haelzle # of Farm Projects: 6 7086 N. Maple Avenue Fax: (559) 326-5905 Fresno, CA 93720 # of Biogas Projects: 30 Email: jhaelzle@CRAworld.com

Website: www.CRAworld.com

Founded in 1976, Conestoga-Rovers & Associates (CRA) provides comprehensive, multi-disciplinary services in the areas of engineering, environmental consulting, construction, and information technology (IT). CRA offers a unique blend of technical expertise and project experience in technology evaluation/assessment and engineering design of anaerobic digestion and biogas collection, upgrading/treatment, and utilization systems for the municipal, agricultural, and food processing sectors. Supporting these areas of endeavor are CRA's considerable experience in landfill gas handling/utilization, waste pretreatment, energy production, municipal waste/wastewater treatment, air emissions, and economic analysis.

David Bach Electrical Services

David Bach Tel: (815) 243-2981 Year Established: 1998 3398 E. Edson Road # of Farm Projects: 1 Fax: N/A Rockford, IL 61109 Email: churchtuna@yahoo.com # of Biogas Projects: 1

Website: N/A



Dennis Gerber, Consultant

Tel: (831) 624-6073 Year Established: N/A Dennis Gerber Fax: (831) 624-6073 # of Farm Projects: N/A P.O. Box 2031 Email: dhgerber@comcast.net # of Biogas Projects: N/A

Carmel, CA 93921 Website: N/A

Mr. Gerber designs and installs anaerobic digester covers. His Gas Collecting Floating Cover design, which holds a U.S. Patent, is the de-facto standard for flexible membrane anaerobic digesters.

ecosur

Tel: 33-14-755-0678 Year Established: 2005 Timothée Lazaroo Fax: 33-14-505-2702 # of Farm Projects: 22 2 rue Greuze Email: t.lazaroo@ecosur.fr # of Biogas Projects: 34 Paris. France 75116

Website: ecosuramerica.com

ecosur is a French-based company that works in the Kyoto protocol's framework. It develops CDM and JI projects in the sector of methane capture and recovery: LFG (landfill gas flaring) and the AWMS (Animal Waste Management System - biogas combustion). It proposes legal, financial, and technical expertise to project developers that need to set up the carbon part of their projects and helps them select and implement the appropriate technologies. We help farming activities and local communities benefit from the carbon credits system to enhance their environmental performances.

Electrigaz Technologies, Inc.

Tel: (819) 687-2875 Year Established: 2001 Eric Camirand Fax: (819) 687-2875 # of Farm Projects: 100+ 10301 Ch. Ste-Marguerite, Email: eric@electrigaz.com # of Biogas Projects: 200+ B.7. Troi-Rivieres. Quebec Website: www.electrigaz.com

Canada G9B 6M6

Electrigaz Technologies specializes exclusively in the research and development of biogas solutions for agricultural producers, industrials, energy developers, plant builders, engineering firms, governments, municipalities, and universities.

Environmental Resource Recovery Group, LLC

Tel: (913) 886-8051 **Burt Tribble** Year Established: N/A Fax: (913) 660-0405 # of Farm Projects: N/A 15789 202 Street Email: btribble@enrrg.com # of Biogas Projects: N/A Nortonville, KS 66060 Website: N/A

Environmental Resource Recovery Group (EnRRG) is a company whose partners have experience in anaerobic digestion and waste-to-energy in agriculture, agribusiness, and the food industry. EnRRG's business is identifying practical energy recovery, anaerobic digestion, and waste management projects, evaluating their economic potentials, and bringing together qualified projects with development partners. Qualified projects are those meeting technical requirements and economic investment guidelines.



FOX Engineering Associates, Inc.

Tel: (515) 233-0000 Year Established: 1967 Dale Watson # of Farm Projects: 2 1601 Golden Aspen Drive Fax: (515) 233-0103 Ames, IA 50010 # of Biogas Projects: 18 Email: dwatson@foxeng.com

Website: www.foxeng.com

FOX Engineering Associates specializes in environmental and civil engineering services for industrial, municipal, and agricultural sectors. The company focuses on water, wastewater, soil, and air media issues; it has designed a digester for Crawford Farm (demonstration project), a swine farm in Nevada, Iowa.

Future Enviroassets, LLC

Tel: (513) 349-3844 Larry Fradkin Year Established: N/A 922 Oregon Trail Fax: N/A # of Farm Projects: N/A Cincinnati, OH 45215 Email: If@futureenviroassets.com # of Biogas Projects: N/A

Website: www.futureenviroassets.com

Future Environmental consulting firm with over 28 years of experience and expertise in anaerobic digestion.

Hall Associates

John H. Martin, Jr. Ph.D. Year Established: 1980 Tel: (302) 855-0723 23 Evergreen Drive # of Farm Projects: 15+ Fax: N/A Georgetown, DE 19947 # of Biogas Projects: 15+ Email: hallassociates@mediacombb.net

Website: N/A

Hall Associates specializes in providing analysis for prospective owners and possible investors of the technical and financial feasibility of proposed biogas projects for livestock and food processing wastes including proposals by project developers. They also conduct performance evaluations of existing systems.

Hannover, Ltd.

Don Keysser Tel: (612) 710-0995 Year Established: 1994 # of Farm Projects: N/A 8276 Kingslee Road, #101 Fax: N/A Bloomington, MN 55438 # of Biogas Projects: 4 Email: don@hannoverconsulting.com

Website: www.hannoverconsulting.com

Hannover provides business development, project financing, and project coordination services to the alternative energy industry, including assistance in securing capital.



Hard Hat Services

Mark Loerop

932 N. Wright Street, Suite 160

Naperville, IL 60563

Tel: (630) 687-9160

Fax: N/A

Email: Mark.Loerop@hardhatinc.com

Website: www.hardhatinc.com

Year Established: 2000

of Farm Projects: 2

of Biogas Projects: 15

Year Established: 1937 # of Farm Projects: N/A

of Biogas Projects: N/A

Hard Hat Services is an engineering-construction management firm that works throughout the United States and internationally. They acquired Kouba Engineering LLC. They specialize in anaerobic treatment of high-strength waste including manure and biogas to energy projects.

KLJ

Mark Luther Tel: (701) 355-8400

128 Soo Line Drive Fax: N/A

Bismarck, ND 58501 Email: mark.luther@kljeng.com

Website: www.kljeng.com

KLJ provide alternative and renewable energy solutions through its facilitating, consulting, engineering, and project management

services.

Larsen Engineers

Tel: (585) 272-7310 Ram Shrivastava 700 West Metro Park Fax: (585) 272-0159

Rochester, NY 14623 Email: info@larsen-engineers.com

Website: www.larsen-engineers.com

Year Established: 1955 # of Farm Projects: N/A

of Biogas Projects: N/A

Larsen Engineers offers a broad and diverse range of services including civil and environmental engineering, survey, planning, and energy conservation. It has provided services throughout the northeastern part of the United States. Since the company's inception in 1955. Larsen Engineers has focused on and completed a number of projects related to; anaerobic digestion, energy conservation/ audits, wastewater treatment, site development, and surveying. Larsen Engineers is interested in saving clients' money through sustainable solutions.

MacMillan & Associates

Tel: (503) 628-0277 Roy MacMillan 17815 NE Courtney Road Fax: N/A

Newberg, OR 97132 Email: rm@macmillan-group.com

Website: N/A

Year Established: 1973 # of Farm Projects: 9

of Biogas Projects: 6

MacMillan & Associates is an integrated engineering and consulting company that specializes in providing energy-related services to the agricultural community.



Maurer-Stutz, Inc.

Terry L. Feldmann

3116 North Dries Lane, Suite 100

Peoria, IL 61604

Tel: (309) 693-7615 Fax: (309) 693-7616

Email: tlfeldmann@mstutz.com

Website: www.mstutz.com

Year Established: 1993 # of Farm Projects: 7 # of Biogas Projects: 7

Year Established: 1988

of Farm Projects: N/A

of Biogas Projects: N/A

Maurer-Stutz is a multi-discipline engineering and surveying firm. The firm's agricultural group consists of four agricultural engineers and a certified crop advisor—all of whom have experience with livestock and poultry waste handling, treatment, and storage systems. Its engineers have performed services for planning and design of methane recovery and/or anaerobic treatment systems including experience with feasibility studies and/or designs for dairy and swine systems. Maurer-Stutz has staff specializing in civil, conservation, environmental, geotechnical, structural, transportation, and water/wastewater engineering along with CAD design and land surveying to complement our agricultural services.

MCX Environmental Energy Corp.

Tel: (404) 419-2536 Rasheed Mustakeem 3500 Lenox Road, Suite 1500

Atlanta, GA 30326

Fax: (404) 816-7809 Email: rasheed@mcxeec.com

Website: www.mcxeec.com

MCX Environmental Energy Corp. is a distributed energy, infrastructure, and construction management services provider.

National Methane

Year Established: 1983 William J. Lingo, Sr. Tel: (937) 226-0340 # of Farm Projects: 37 1823 Leo Street Fax: (937) 226-0340 Dayton, OH 45404 # of Biogas Projects: 13 Email: bilingo5@netzero.com

Website: N/A

National Methane holds a patent for a system that can verify the basis for each of the "multiple" avenues of income streams their system develops. National Methane provides complete farm evaluations and recommendations for incorporating biogas technology into a farm plan. National Methane has provided evaluations for more than 100 chicken farms, more than 60 swine farms, more than 25 dairy farms, and one sheep farm. It also provides grant writing and public relations services related to onfarm biogas recovery and fee-based speakers for Community Groups and Agricultural Seminars.

North Carolina Energy Partners

Tel: (336) 402-4118 Andrew J. Courts. Jr. Year Established: N/A 1-E Windy Court Fax: (336) 292-3718 # of Farm Projects: N/A Greensboro, NC 27407 Email: courts@NCEnergyPartners.com # of Biogas Projects: N/A

Website: www.NCEnergyPartners.com

North Carolina Energy Partners is a multi-faceted energy efficiency and renewable energy cooperative that works across many industries including commercial, educational, residential, agricultural, and municipalities. They bring together specialists in a myriad of fields to tailor brain power/experience and provide custom solutions to most energy issues.



Page 11 of 60

Northern Lake Service, Inc.

Jim Pilgrim

January 2015

Tel: (715) 478-2777

Year Established: 1974

Crandon, WI 54520

Fax: (715) 478-3060

of Farm Projects: 20

Email: jimp@nlslab.com

of Biogas Projects: 30

Website: www.nlslab.com

Northern Lake Service (NLS) has provided high quality, environmental compliance data for over 30 years. Since 1994, NLS has served the biogas industry with specialized laboratory services to determine feed stock potential and system efficiency. NLS maintains working relationships with a number of system manufacturers and industry experts throughout the United States.

NTH Consultants, Ltd

James Wallace, PhD PETel: (248) 324-5256Year Established: 196841780 Six Mile RoadFax: (248) 324-5179# of Farm Projects: 8Northville, MI 48168Email: jwallace@nthconsultants.com# of Biogas Projects: 18

Website: www.nthconsultants.com

NTH Consultants, Ltd provides engineering, environmental, and infrastructure services on projects throughout the United States and select international projects, mostly related to the waste industry. NTH completed projects for the USDA-NRCS on various concentrated animal feedlot operations (CAFOs), mostly in Michigan but also with private farms elsewhere. NTH Consultants received both federal and state-level Conservation Innovation Grants to evaluate and improve existing technology to measure performance of various manure storage structure liner systems using indirect, non-destructive test methods based on observed seepage losses. They are confident this research will provide a useful method to satisfy regulatory requirements while minimizing disruption of farms operations during testing.

Omega-Alpha Recycling Systems

Robert Hamburg Tel: (304) 655-8662 Year Established: 1979
Route 1, Box 51 Fax: N/A # of Farm Projects: 2
Orma, WV 25268 Email: bhanomalous7@gmail.com # of Biogas Projects: 5

Website: N/A

Omega-Alpha Recycling Systems (OARS) works on projects related to organic recycling and biogas systems integrated with organic farming and permaculture facilities. OARS has designed four small-scale, ambient temperature digesters: 1) Arcadia Farm, a goat, chicken, and horse farm in Orma, West Virginia with a Chinese style extended batch digester; 2) Urbanic Farm, a horse, cow, and chicken farm in Chloe, West Virginia with a Chinese style extended batch digester; 3) Agriculture Research Farm, a swine farm in Bamaco, Mali, West Africa with a Chinese style extended batch digester; and 4) the Mandali School, a school with cattle, in Chhopark, Nepal, an Indian design Gobar Gas demonstration project. OARS was also instrumental in halting a project that was environmentally and economically unsound.



Optimal Strategies

R Raj Telang Tel: (412) 254-8211 Year Established: 2001 722 Highpoint Drive Fax: N/A # of Farm Projects: N/A Wexford, PA 15090 Email: raj@optimal-strategies.com # of Biogas Projects: N/A

Website: www.optimal-strategies.com

Optimal Strategies is associated with EHV Engineering of the United Kingdom.

Organix, Inc.

Tel: (509) 527-0526 Year Established: 2001 Russell V. Davis Fax: (509) 527-0528 # of Farm Projects: 3 209 S. 2nd Avenue Walla Walla, WA 99362 Email: rdavis@organix.us # of Biogas Projects: 3

Website: www.organix.us

Organix is a residuals management firm specializing in adding value to dairy manure through processing, market development, sales, and ongoing research.

Phase 3 Developments & Investments, LLC

Tel: (513) 265-2758 Norma McDonald Year Established: 2005 7155 Five Mile Road # of Farm Projects: 4 Fax: (330) 319-8152 Cincinnati, OH 45230 Email: normacnc5@aol.com # of Biogas Projects: 17

Website: N/A

Phase 3 Developments & Investments, LLC provides services to agricultural customers related to renewable energy and biobased products. Services include financing and grant application preparation, business and technical feasibility studies, design, procurement, installation, and commissioning services for anaerobic digestion and gasification.

Positive Energy Alternatives, LLC

Tel: (715) 664-6162 Year Established: 2004 Delroy Leslie P.O. Box 11 # of Farm Projects: 1 Fax: (715) 232-8824 Menomonie, WI 54751 # of Biogas Projects: 2 Email: leslied@posengalt.com

Website: posengalt.com

Positive Energy Alternatives, LLC offers consultancy services and management of anaerobic digesters to farmers and communities. The company performs feasibility studies, farm evaluations and recommendations for farmers and/or organizations interested in biogas technology. Positive Energy Alternatives, LLC also assists farmers and organizations in completing grant applications to state and federal agencies.



Prime Solutions, Inc.

Tel: (203) 482-1743 Year Established: 2009 Shawn Brazo Fax: (866) 960-9628 # of Farm Projects: N/A 143 West Street # of Biogas Projects: 2 New Milford, CT 06776 Email: sbrazo@primesolutions-inc.com

Website: www.primesolutions-inc.com

Prime Solutions, Inc., ("PSI") is a provider of integrated green-energy design, engineering, sustainability-consulting, and implementation solutions custom-tailored to help its customers achieve their energy efficiency and renewable energy goals. The company operates in the electric utility and the commercial and industrial markets. Its key customers within these markets include utilities as well as electrical cooperatives and a variety of commercial and industrial businesses, in particular, energy intensive businesses such as healthcare and higher education facilities. PSI specializes in helping clients shift to alternative and/or renewable energy sources when it makes financial sense for them to do so. PSI also provides interconnection services to enable clients to make utility connections efficiently and in a timely, cost- effective manner.

R. Alexander Associates, Inc.

Tel: (919) 367-8350 Year Established: 1998 Ron Alexander 1212 Eastham Drive Fax: (919) 367-8351 # of Farm Projects: 10 Email: alexassoc@earthlink.net # of Biogas Projects: 20 Apex, NC 27502

Website: www.alexassoc.net

R. Alexander Associates, Inc. (RAA) is an environmental consulting company specializing in 'organics recycling' (i.e., composting, AD, reuse). RAA provides a full range of technical services (e.g., facility design and evaluation, systems and equipment selection, etc.). It has been acknowledged as a leader in market research and development, and is respected for its expertise in product development, product quality issues, and end use. RAA provides service throughout North America, and internationally; it is known for its practical experience, creative solutions and overall understanding of the organics recycling industry.

R. K. Frobel & Associates

Tel: (303) 679-0285 Year Established: 1988 Ronald K. Frobel, P.E. Fax: (303) 679-8955 # of Farm Projects: 30 1153 Bergen Parkway Email: geosynthetics@msn.com # of Biogas Projects: 4 Suite M-240

Website: N/A Evergreen, CO 80439

Established in 1988, R.K. Frobel & Associates consulting engineers provides design and construction assistance in the growing field of geosynthetics, including design assistance in both animal waste lining systems and waste/anaerobic digester cover systems. Design assistance is provided to full service engineering firms or facility/farm owners. As principal of R.K. Frobel & Associates, Mr. Frobel has over 25 years of experience in synthetic lining and cover systems including agricultural applications.

RCM International LLC

Tel: (510) 834-4568 Year Established: 1982 Angie McEliece Fax: (510) 834-4529 # of Farm Projects: 85+ P.O. Box 4716 Email: angie@rcmdigesters.com Berkeley, CA 94704 # of Biogas Projects: 100+

Website: www.rcminternationalllc.com

RCM International is in the business of designing, building, and maintaining anaerobic digester systems. Its goal is to provide a profitable project that the owner is proud of. RCM staff has designed and built over 85 successfully operating farm digester systems (in the United States and internationally). Its smallest digesters were a 200-pig digester and a 200-cow digester. Its largest operating digesters include an 8,000-cow dairy, 239,000 finish hog, 5,000sow to wean, and 25,000 hog (farrow-to-finish). Over half of its digesters co-digest other wastes including whey, ice cream, fruit juice, fish breading, yeast, and grease trap waste. RCM provides design services, equipment specification and procurement, construction management services as well as comprehensive turn-key construction services for the implementation of biogas projects.



Richmond Energy Associates

Tel: (802) 434-3770 Year Established: 1997 Jeff Forward # of Farm Projects: 15 2899 Hinesburg Road Fax: (802) 434-2344 Richmond, VT 05477 # of Biogas Projects: 15 Email: forward@gmavt.net

Website: N/A

Richmond Energy Associates is a renewable energy company specializing in anaerobic digestion feasibility analysis.

Russell J. Murray & Associates

Russ Murray Tel: (559) 224-7547 Year Established: 2003 # of Farm Projects: 2 736 W. Pico Avenue Fax: (559) 224-7547 Fresno, CA 93705 # of Biogas Projects: 8 Email: russjmurray@aol.com

Website: N/A

Russell J. Murray & Associates provides design, construction supervision, and start-up of anaerobic digesters for the dairy, food processing, and wine industries.

Selective Site Consultants, Inc.

Year Established: 1997 Terry Super Tel: (913) 438-7700 9900 West 109th Street. # of Farm Projects: N/A Fax: (913) 438-7777 Suite 300 # of Biogas Projects: 3 Email: tsuper@ssc.us.com

Overland Park, KS 66210 Website: www.ssc.us.com

Selective Site Consultants, Inc. (SSC) is a site development consultant providing site acquisition, engineering, and construction management services for multiple industries, including renewable energy. SSC has developed strategic partnerships with several waste-to-energy experts to deliver turnkey anaerobic digestion system solutions.

Selectra

Rob Cloete Tel: +27 83 678 5563 Year Established: 2005

> Fax: +27 86 124 6427 # of Farm Projects: N/A Email: rob@selectra.co.za # of Biogas Projects: 1

Website: www.biogaspower.co.za

Selectra provides consulting services as well as implementation support of its unique and revolutionary Anaerobic Wastewater Treatment Bioenergy System. They have implemented five farm projects and have 16 in the pipeline; all are biogas projects. They also completed a feasibility study for one of the world's top 5 gold mining companies on a bioenergy project. The mining company will use bioenergy crops to remediate impacted land whilst producing biogas which will be scrubbed, bottled, and used by the mine in heating applications where it will replace fossil fuel and electrical resistive heating.



Sellew & Associates, LLC

Tel: (978) 371-0501 Year Established: 1998 Paul Sellew # of Farm Projects: 1 84 Shady Brook Lane Fax: (978) 371-0199 Carlisle, MA 01741 # of Biogas Projects: 1 Email: psellew@comcast.net

Website: N/A

Sellew & Associates, LLC offers a broad range of experience in manure and industrial organics anaerobic digestion.

Stewart Environmental Consultants, Inc.

Fred Porter Tel: (970) 226-5500 Year Established: 1957 # of Farm Projects: N/A 3801 Automation Way Fax: N/A Fort Collins, CO 80525 Email: fred.porter@stewartenv.com # of Biogas Projects: 4

Website: N/A

Steward Environmental Consultants specializes in wastewater treatment and reuse. They also provide feasibility studies, anaerobic facility design (including building and operating), and financing.

Tetra Tech Inc.

Tel: (425) 482-7802 Charles Egigian-Nichols Year Established: 1966 Fax: (425) 482-7652 # of Farm Projects: 40+ 19803 North Creek Parkway Email: charles.enichols@tetratech.com # of Biogas Projects: 40 Bothell, WA 98011

Website: www.tetratech.com

Tetra Tech is a leading provider of consulting, engineering, and technical services worldwide. The firm offers a complete suite of services for optimizing and implementing organics recycling and conversion, including strategic planning, feasibility studies, financial analysis, risk management, design, permitting, construction and start-up. Tetra Tech staff are experienced in the extraction of valuable renewable products and energy from the biomass. These products typically take the form of fiber/compost, heat, power, pipeline-quality renewable natural gas, vehicle fuels (compressed natural gas (CNG), liquefied natural gas (LNG), ethanol, and biodiesel), liquid and gaseous nutrients and other marketable products. By implementing cost-effective solutions, Tetra Tech produces results that help its clients transform waste products, or liabilities, into value-added products.

Tiry Engineering, Inc.

Tel: (866) 944-6777 Year Established: 1994 Mike Tiry Fax: (715) 723-6842 # of Farm Projects: 12 P.O. Box 44 Email: contact@tirvengineering.com # of Biogas Projects: 12 Chippewa Falls, WI 54729

Website: www.tiryengineering.com

Tiry Engineering, Inc. (TEI) was formed in 1994 to provide engineering services to the agricultural community. TEI has designed two digesters in New York and provided supplement design services (i.e., permitting, site design, tank design, and feasibility studies) for numerous digester projects. With over 80 years of combined experience, TEI strives to provide the services clients need through their dedication to both excellence and integrity.



Page 16 of 60

Triple Bottom Consulting, LLC

John Norwood

Tel: (515) 556-9765

Year Established: 1998

1611 Green Branch Circle

Fax: (515) 440-1440

West Des Moines, IA 50265

Tel: (515) 556-9765

Fax: (515) 440-1440

of Farm Projects: N/A

of Biogas Projects: N/A

Website: N/A

Triple Bottom Consulting, LLC is led by an expert consultant engaged in the development of new business models, strategies, and policies designed to stimulate the development of locally- and regionally-based food, fiber, and energy systems, and other agriculturally-related specialty products. John Norwood has more than 20 years of professional experience in program development and promotion, spanning the public, private and nonprofit sectors. Mr. Norwood has a proven track record of driving organizations to achieve far reaching goals, by combining innovative business practices and systems, with rigorous data analysis, in-depth problem solving skills, and incentive-driven partnerships. Mr. Norwood's past clients include Drake University's Agricultural Law Center and the Maxyield Cooperative (community-based approach to manure management and methane recapture).

Vertin Valuation Service

 Steve Vertin
 Tel: (312) 558-1478
 Year Established: 1992

 203 N LaSalle Street, Suite 2100
 Fax: (708) 524-8936
 # of Farm Projects: 15

 Chicago, IL 60601
 Email: svertin@aol.com
 # of Biogas Projects: 20

Website: www.vertinvaluation.com

Vertin Valuation Service provides services from commercial industrial real estate appraisers, with experience appraising several anaerobic digestion systems in the Midwest for financing.

Waterbusters

Ralph Ross
Tel: (281) 980-0971
Year Established: 2011
3302 Williams Glen Drive
Fax: (281) 980-0971
of Farm Projects: N/A
Sugar Land, TX 77479-2443
Email: coinmanross@windstream.net
of Biogas Projects: N/A

Website: N/A

Waster Busters is a new consultant company start-up designed to remove organic waste.

WELTEC BIOPOWER GmbH

Craig Wong
Tel: (408) 657-0852
Year Established: 2001
6081 Meridian Avenue,
Fax: N/A
Suite 70-121
Fmail: c.wong@weltec-biopower.net
of Biogas Projects: 300+

San Jose, CA 95120 Website: www.weltec-biopower.com

Weltec Biopower plans and provides modular, stainless steel biogas facilities around the world. These modular stainless steel digesters are easy to construct, so installations can be designed with experience in Germany and assembled throughout the world to a high tolerance. The use of high quality stainless steel offers superior durability in the corrosive biogas environment. These plants will retain their value over long periods of time, offering the owner flexibility in the future. With over 300 plants around the world in 2013, Weltec Biopower looks forward to assisting the American dairy farmer and food industry create profit from their waste, with reliable stainless steel biogas plants.



Wilson Engineering Services, PC

Thomas H. Wilson, PE

9006 Mercer Pike

Meadville, PA 16335

Tel: (814) 337-8223

Fax: (814) 336-5191

Fax: (814) 336-5191

of Biogas Projects: 2

Website: www.wilsonengineeringservices.com

Wilson Engineering Services (WES) specializes in biomass related energy projects. WES combines extensive knowledge of crop development and waste handling systems with practical design experience to develop energy projects that are economically, environmentally, and socially beneficial. WES is experienced in development of successful applications for grant and loan programs geared towards implementing biomass energy projects. WES guides clients successfully through the red tape required to obtain grants and low interest loans for projects such as anaerobic digesters and biomass boilers.

Whole Energy Fuels Corporation

Brady Irwin

Tel: (253) 569-0305

Year Established: 2006
of Farm Projects: 1

Fmail: brody@whole energy com
of Biogas Projects: 2

Email: brady@whole-energy.com Website: www.whole-energy.com

Whole Energy has been in the renewable fuels market since 2006. Beginning with distribution and support of biodiesel and expanding into other alternative fuels, Whole Energy has developed a specialty in marketing the products and co products of your bio energy systems. The focus is on connecting producers with the highest value end-users. Services provided include biogas based power supply contract negotiation, biogas based energy to vehicle contracting for RIN generation, renewable natural gas to vehicle project design and marketing, carbon credit/offset registration, and systems efficiency evaluation.

Zeroemissions

Pablo Martin

Tel: (212) 504-2904

Year Established: N/A

80 Broad Street, 5th Floor

Fax: N/A

Suite 628

Fax: N/A

of Farm Projects: N/A

of Biogas Projects: N/A

New York, NY 10004 pablom.martin@zeroemissions.abengoa.com

Website: www.zeroemissions.com/corp/web/en/

Zeroemissions provides global solutions for climate change through the promotion, development, and trade of carbon credits, corporate carbon strategy, carbon offset services, and innovation in technologies for greenhouse gas reduction.

AgSTAR Vendor Directory 2015



Developers

ACTIVA BioGreen, Inc.

Tel: (630) 238-3111 Year Established: 2003 Hvo Lee One Tiffany Pointe, Suite 100 Fax: (630) 238-3151 # of Farm Projects: N/A Bloomingdale, IL 60108 Email: hyo.lee@activasns.com # of Biogas Projects: N/A

Website: www.activasns.com

ACTIVA BioGreen, Inc. is a new venture company specializing in waste treatment, using the concept of far infra-red rays.

ADI Systems Inc.

Scott Christian

Year Established: 1989 370 Wilsev Road Tel: (506) 452-7307 Fredericton, NB E3B 6E9 Fax: (506) 452-7308 # of Farm Projects: N/A Email: systems@adi.ca # of Biogas Projects: 170 Canada

Website: www.adisystemsinc.com

ADI Systems Inc. has been involved in over 170 full-scale anaerobic installations in 30+ countries. Several of these systems treat agri-waste from food-related processing, while the remainder is treating brewery, beverage, pulp and paper, and some chemical wastes. These systems involve biogas collection and flaring or utilization (in most cases via burning in a boiler to produce hot water and steam). In several instances, utilization has involved cogeneration.

Advance Design Consultants, Inc.

Renato O'Neal Tel: (408) 297-1881 Year Established: 1984 998 Park Avenue Fax: (408) 294-3196 # of Farm Projects: N/A San Jose, CA 95126 Email: renato@adcengineers.com # of Biogas Projects: 6

Website: www.adcengineers.com

Advance Design Consultants (ADC) understands the need to address, plan, and most importantly act on renewable/sustainable efforts to reduce the carbon footprint. They have experience with the design and implantation of: Cogeneration and Trigeneration Plants; Photovoltaic Systems; Solar to Steam for Power Generation; Solar to Hot Water Systems; Biogas Power Plants; Geothermal Power Plants; Wind Power Plants; Non Potable/Recycled Water Systems; and will continue to strive for efficient designs that impact the world. ADC has found with some, if not most, of these systems that the return on investment (ROI) is typically five years. However, with new government programs and local incentives, they find the ROI rapidly decreasing. ADC understands the need to implement capital projects and operational modifications that reduce the ownership, operation, and maintenance costs of energy-consuming systems and equipment for immediate results. That is why they initiated the "ADC Challenge" for customers looking for immediate results.

AGAMA Biogas

Greg Austin Tel: +27(0)21 701-3364 Year Established: 2000 Fax: +27(0)21 702-4920 # of Farm Projects: 6 9b Bell Crescent Close Email: greg.austin@agama.co.za # of Biogas Projects: 18 Westlake Business Park

West Lake, S. Africa 7945 Website: www.agama.co.za

AGAMA Biogas is a fully owned subsidiary of AGAMA Energy, a long established and leading consultant to the energy sector with a clear focus on renewable energy and energy efficiency. AGAMA Biogas consults to the waste industry and other stakeholders that generate ongoing 'problem' waste that typically is difficult to manage and/or lands up in landfill sites. As a company focused on quality solutions, AGAMA Energy designs engineer and implement energy from waste projects. Our three core focus areas are the larger systems pertaining to animal wastes and wastes from the food and beverage industry, on site sanitation for the built environment, and provision of thermal energy to households using a prefabricated biogas digester.



Page 19 of 60

Advanced Green Energy Solutions LLC

Tel: (262) 617-1570 Daniel DeBuhr Year Established: N/A S79 W16459 Woods Road Fax: (262) 244-1455 # of Farm Projects: 2 Muskego, WI 53150 Email: tes@wi.rr.com # of Biogas Projects: 2

Website: www.agrenergyllc.com

Advanced Green Energy Solutions LLC is an anaerobic Kit supplier with full turn-key capabilities and project financing capacity as

Agri Bio Systems

Tel: (847) 888-7854 Year Established: 1985 Richard Vetter, PhD, Fax: (847) 888-1484 # of Farm Projects: 7 Email: r.vetter@sbcglobal.net PAS. ACAN # of Biogas Projects: 7

Website: N/A 2333 Tara Drive

Elgin, IL 60123

Agri Bio Systems performs feasibility assessments, and designs and installs biogas systems in the United States and abroad. Examples of biogas systems include: 1) Lindstrom Farm: a 50-cow dairy farm in Welch, Minnesota: 2) Leefer Farm, a 1,000-cow beef confinement farm in Carbin Carlinville, Illinois; 3) Smith Farm, a 70,000-broiler poultry farm in Princeton, North Carolina; 4) Naser Farm, a 1,000-sow finishing swine farm in Sibley, Iowa; 5) Hamilton Farm, a 450-sow finishing farm and a 120,000-layer poultry farm in Iowa Falls, Iowa; 6) Huntington Dairy, a 300-cow dairy farm in Cooperstown, New York; 7) Cushman Farm, a 600cow dairy in Franklin, Connecticut; and 8) International Project, Taiwan, Environmental Training Center for Waste Management. Agri Bio Systems also acts as a coordinator on numerous animal waste and food waste projects.

Agriculture Energies LLC

Chuck Helmke Tel: (520) 204-4223 Year Established: 2008 Fax: (520) 844-1003 # of Farm Projects: 4 6890 Sunrise Drive. Email: ChuckHelmke@agricultureSolar.com # of Biogas Projects: 4 Suite 120-261

Website: www.AgricultureSolar.com Tucson, AZ 85750

Agriculture Energies integrates renewable energy technologies to create a renewable energy system appropriate to each customer's particular electrical power needs. Agriculture Energies' products and services cover the analysis, development, manufacture, integration, installation, operation, service, and marketing of complete renewable energy systems. Agriculture Energies renewable energy system components include solar, bio-diesel, biomass, anaerobic digestion, geothermal, thermal electric generation, hydrogen generation, and hydrogen fuel cell technology. They specialize in "global" consulting and project system development using solar, waste utilization, and greenhouse farming technologies, especially for supported agriculture. They have experience with the design and implantation of: Solar Photovoltaic Systems; Solar to Steam for Power Generation; Solar to Hot Water Systems; Biogas Power Plants; Geothermal Power Plants; and will continue to strive for efficient designs that impact the world.

AgroEnergien Meiners

Tel: +49(0)4453-98-58-00 Year Established: 2000 **Burkhard Meiners** Fax: +49(0)4453-98-58-02 # of Farm Projects: 16 **Brunner Street 18** Email: meiners@agroenergien.de # of Biogas Projects: 16 26316 Varel, Germany

Website: www.agroenergien.com

AgroEnergien Meiners in a manufacturer and distributor of the self-mixed digester (SMD) biogas system. The SMD uses gas pressure for mixing and has no internal moving parts. A ground sludge separator is optional.



Anaergia Inc.

Kurt Rohmann 4210 South Service Road Burlington, Ontario Canada L7L 4X5

Tel: (905) 766-3333

Fax: N/A

Email: kurt.rohmann@anaergia.com

Website: www.anaergia.com

Year Established: 2009

of Farm Projects: 1600 # of Biogas Projects: 1500

Year Established: 2005

of Biogas Projects: N/A

Year Established: 2007

of Biogas Projects: 3

of Farm Projects: 3

of Farm Projects: 5

Anaergia Inc. is a global leader in providing sustainable solutions for the generation of renewable energy and the conversion of waste to resources. Through its subsidiaries such as UTS Biogastechnik in Europe, Anaergia is trusted at more than 1,600 operational renewable energy projects over its 20 year history. Anaergia operates out of 16 offices across North America, Europe, and Asia.

Anchor-International-LLC

Tel: (619) 261-1142 Year Established: 2008 Paul D. Wells # of Farm Projects: N/A 2242 Grafton Street Fax: (619) 596-2575 El Cajon, CA 92020 # of Biogas Projects: N/A Email: wellsnge@aol.com

Website: www.anchor-international-llc.com

Anchor-International LLC is a Service Disabled Veteran Owned Small Business and biogas developer.

Avatar Energy

Tel: (925) 274-7600 Erin Wood / John Anthony 1981 North Broadway, Fax: (925) 210-9070 Suite 430 Email: ewood@avatarenergy.com

Walnut Creek, CA 94596 Website: www.avatarenergy.com

Avatar Energy is an innovative energy company that produces an affordable modular anaerobic digester which reduces dairy costs while providing a renewable source of energy for dairy farmers regardless of herd size. The digester converts manure waste into electricity, bedding, fertilizer, and other useful by-products. Avatar Energy is unique in the alternative energy industry because it provides an "off-the-shelf" yet customized solution for manure waste management and energy generation. Its revolutionary anaerobic digester is the first scalable system to employ a tubular, modular design platform suitable for any size farm.

BalanceCO2

Tel: (302) 494-9476 Selva Kumar Fax: (302) 633-1325 103 Ascension Drive

Wilmington, DE 19808

selva.kumar@balanceco2.com Website: www.balanceco2.com

BalanceCO2 provides end-to-end project management of farm-scale anaerobic digestion with an emphasis on emissions reduction and sale of carbon credits. Converting animal and plant waste into energy can be a triple-hitter: it not only helps reduce waste going to landfills or from being released as gas into the atmosphere, it also saves energy and money.

Bio-Digester Management Services include: feasibility analysis of waste management projects; bio-digester technology assessment and selection; Waste to Energy (WTE) facility design and engineering; engineering design and implementation of Bio-Digester; farm-scale anaerobic digestion; aggregating emissions reductions for sale in carbon trading market; and help with financing the project.



BDI-BioEnergy International AG

Tel: +43 316 4009-100 Year Established: 1996 Parking 18 # of Farm Projects: N/A Grambach/Graz 8074 Fax: +43 316 4009-110 # of Biogas Projects: N/A Email: sales@bdi-bioenergy.com

Website: http://www.bdi-bioenergy.com

BDI – BioEnergy International AG is market and technology leader in the construction of customized BioDiesel plants using the Multi-Feedstock Technology the company has developed itself, which can manufacture BioDiesel from different raw materials, such as Vegetable Oils, Used Cooking Oils and Animal Fats. BDI has specialized in the development of technologies that make optimum use of resources in the industrial processing of by- and waste products ever since it was established in 1996 and owns an extensive patent portfolio that has resulted from its in-house research and development activities. As a leading constructor of special plants, BDI also supplies efficient plant concepts in the "from waste to value" field that are designed to produce BioGas from industrial and municipal

waste. The range of services includes public authority, basic and detailed engineering, installation and start-up as well as after-sales

support.

Bio-en Power, Inc.

Earl Brubacher Tel: (519) 669-5171 Year Established: 2005 # of Farm Projects: 2 4 Athur Street N. Fax: (519) 669-5982 Elmira, Ontario, # of Biogas Projects: 1 Email: earlb@marbro.com

Canada N3B 3A2 Website: www.bio-en.ca

Bio-en Power, Inc. is a full service anaerobic digester (AD) company serving the North and Central America market. Bio-en provides design, engineering, project management, construction, commissioning, and operator training for AD facilities. It serves the agricultural, industrial, and municipal markets including decontaminating systems for food waste, electrical generation, and purifying biogas for gas grid injection and vehicle fuel. It is a one-stop for all AD needs from 100 kW to 5 MW. Its technology is leading edge and able to handle some of the most difficult feed-stock material and maintain biological stability.

BIOFerm Energy Systems

Tel: (608) 467-5523 Year Established: 2001 Daniela Rumpf 617 N. Segoe Road, # of Farm Projects: N/A Fax: (608) 233-7085 Suite 202 Email: info@biofermenergy.com # of Biogas Projects: 30

Madison, WI 53705 Website: www.biofermenergy.com

BIOFerm™ Energy Systems, a Viessmann Company, is a world leader in the development of dry fermentation renewable energy facilities. BIOFerm™ designs and constructs anaerobic digestion plants that use unique dry fermentation technology to produce biogas. Biogas can be utilized in a wide array of energy generation applications (heat, electric, fuel). Because organic waste and biomass are the primary inputs, energy is recovered from untapped sources creating carbon neutral energy production and waste management solutions.

Biogas Energy, Inc.

Brian Gannon Tel: (815) 301-3432 Year Established: 1996 # of Farm Projects: 1 4509 Interlake Ave N #222 Fax: (815) 301-3432 Seattle, WA 98103 # of Biogas Projects: 1 Email: info@biogas-energy.com

Website: www.biogas-energy.com

Biogas Energy, Inc. designs and builds complete mix anaerobic digesters.



Biothane

Ryan Johnston

Tel: (856) 541-3500

Year Established: 1987

2500 Broadway

Fax: (856) 541-3366

of Farm Projects: 24

Camden, NJ 08104

Email: ryan.johnston@veoliawater.com

of Biogas Projects: 25

Website: www.biothane.com

Biothane specializes in biological treatment of industrial wastewater, and designs and builds anaerobic digesters for livestock manure. Biothane worked with E3 BioFuels, LLC to develop an integrated cattle manure management/ethanol project in Mead, Nebraska that is expected to revolutionize ethanol production by virtually eliminating the need for fossil fuels. Biothane designed a nutrient recovery that separates the effluent waste stream into two separate streams, one high in solids and phosphorous, which is well-suited for composting, and the other low in solids and high in nitrogen, which will be sent to an ammonia stripping column, with aqueous ammonia as a final product.

BioWaste Energy, Inc.

 Zia Khan
 Tel: (209) 465-0296
 Year Established: 1973

 P.O. Box 8520
 Fax: (209) 465-1605
 # of Farm Projects: N/A

 Stockton, CA 95208
 Email: ziakhan@pacbell.net
 # of Biogas Projects: N/A

Website: N/A

BioWaste Energy, Inc. and its predecessors have provided quality services to industries and municipalities since 1972 and have completed more than 300 power generation projects in the United States and abroad. The company develops and finances zero discharge projects utilizing anaerobic technology. These projects treat solid and liquid waste and produce saleable products, including electricity generated from methane, liquid fertilizer, CO2, soil amendments, and recycled potable water. These facilities provide zero solid and liquid discharge. The company offers a full range of services covering all phases of project development from planning, feasibility studies, engineering design, equipment and systems supply, and construction and installation to start-up and operations.

Burns & McDonnell

Jeff GreigTel: (816) 333-9400Year Established: 18989400 Ward ParkwayFax: (816) 333-3690# of Farm Projects: N/AKansas City, MO 64114Email: jgreig@burnsmcd.com# of Biogas Projects: N/A

Website: www.burnsmcd.com

Burns & McDonnell provides engineering and construction services to a wide variety of clients in the fields of energy, infrastructure, and aviation. Burns & McDonnell specializes in project development assistance encompassing planning, design, and construction of power generation and renewal projects. Burns & McDonnell provides turn-key development, financing, design, and construction of anaerobic digester and generation projects.

California Power Partners, Inc.

 Tom Moore
 Tel: (858) 271-5500
 Year Established: 1996

 8525 Arjons Drive, Suite I
 Fax: (858) 271-5510
 # of Farm Projects: 2

 San Diego, CA 92126
 Email: tomm@calpwr.com
 # of Biogas Projects: 8

Website: www.calpwr.com

California Power Partners, Inc. (Calpwr) is a total turn-key provider of services to the distributed generation and cogeneration industry. Calpwr's services include financial and technical analysis, engineering, equipment supply, project management, construction, financing, operations and maintenance, etc.



CCI BioEnergy Inc.

Kevin MatthewsTel: (416) 230-9391Year Established: 1994390 Davis Drive, Suite 301Fax: (905) 830-0416# of Farm Projects: N/ANewmarket, OntarioEmail: kmatthews@ccibioenergy.com# of Biogas Projects: 3

Canada L37 7T8 Website: www.ccibioenergy.com

Using a partnership model, CCI BioEnergy's (CCI) mission is to assemble teams to design, build, operate, and sell, in any combination, projects that recover the value in residential, commercial, and agricultural organic wastes. The solution nucleus, the BTA® Process, is a robust technology platform that integrates industry leading pre-processing systems with proven methods of AD and the by-product utilization systems.

CH Four Biogas, Inc.

Benjamin Strehler or Tel: (613) 224-8308 Year Established: 2006
Ethan Werner Fax: (613) 224-1642 # of Farm Projects: 13
102-1390 Prince of Wales Drive Email: info@CHFourBiogas.com # of Biogas Projects: 15

Ottawa, Ontario Website: www.CHFourBiogas.com

Canada K2C 3N6

CH Four Biogas, Inc offers all services necessary for effective project development, implementation, and operation. Services include site assessment, feasibility studies, permitting, design, construction, and operational support. With its proprietary modeling software, the company further provides feedstock optimization and digester rescue services, as well as feedstock sourcing and system financing through its partner companies. Implementation methods include all variations of design/build/own/operate. CH Four's expertise is grounded in more than 20 years of European and 20 years of North American biogas experience. The company is headquartered in Ottawa, has offices in British Columbia and representatives in the United States.

Chevron Energy Solutions

Alana O'Connell Ruegg
Tel: (415) 733-4668
Year Established: 1997
345 California Street
Fax: (415) 733-4961
of Farm Projects: N/A
Email: cesfeedb@chevron.com
of Biogas Projects: 2
Website: www.chevronenergy.com

Chevron Energy Solutions provides public intuitions and businesses with environmentally sound projects that increase energy efficiency, reduce energy costs, and ensure reliable, high-quality power for critical operations. The company employs proven technologies to meet customers' specific needs. Its parent, Chevron Corporation, is investing across the energy spectrum to develop energy sources for future generations by expanding the capabilities of alternative and renewable energy technologies.

Clear Horizons, LLC

 Leo Maney
 Tel: (414) 831-1264
 Year Established: 2005

 5070 N 35th Street
 Fax: (414) 462-7711
 # of Farm Projects: 3

 Milwaukee, WI 53209
 Email: leo.maney@pieperpower.com
 # of Biogas Projects: 5

Website: www.clearhorizonsllc.com

Clear Horizons is a developer of biogas energy systems headquartered in Milwaukee, Wisconsin. Clear Horizons is a subsidiary of PPC Partners, Inc. Clear Horizons provides complete technical services, all required construction services, and the ability to operate and maintain the system for the customer. This greatly reduces the time commitment typically required from the customer, provides one source of responsibility for the entire project, and develops a partnership with the customer for the life of the project.



DLS EnviroSolutions Inc.

Tel: (519) 666-1404 Year Established: 2006 John van Logtenstein # of Farm Projects: 6 6403 Egremont Drive Fax: (519) 666-0627 Komoka, Ontario # of Biogas Projects: 8 Email: john@dairylane.ca

Canada N0L 1R0 Website: www.dlsenvirosolutions.ca

DLS EnviroSolutions Inc. (DLS) is a full service digester development company serving the North American market place. DLS is actively involved in all stages of the development process, including project feasibility, system design, engineering, construction, system service, and biological support. The DLS approach to digester design/construction/support is centered on the operator, whereby DLS provides the level of support required to bridge the operator's comfort level and ensure the successful realization of the plant's performance specifications.

DMK Ingeniería, S.L.

Daniel Morris Kraut Tel: +34 98-555-1833 Year Established: 2006 # of Farm Projects: 4 C/ Gutiérrez Herrero Fax: +34 98-551-1060 52 Avilés # of Biogas Projects: 10 Email: krautdm@dmkingenieria.es

Asturias, Spain Website: N/A

DMK Ingeniería, S.L. is an environmental engineering company located in Northern Spain that is dedicated to the development of biogas, biodiesel and other bioenergy projects in Europe, Latin America, and North America. DMK Ingeniería, S.L. is active in European Projects, and is interested in collaborating with North American companies interested in joint collaboration projects.

DVO, Inc. (formerly GHD, Inc.)

Tel: (920) 849-9797 Year Established: 1989 Steve Dvorak P.O. Box 69 # of Farm Projects: 80 Fax: (920) 849-9160 Chilton, WI 53014 Email: info@dvoinc.net # of Biogas Projects: 81

Website: www.dvoinc.net

DVO. Inc. provides engineering and system installation experience in the anaerobic digester industry. DVO. Inc., with its patented mixed plug flow digester design, has over 80 operating anaerobic digesters at more than 60 farms in the United States.

ECOCORP, Inc.

Dr. John Ingersoll Tel: (703) 979-4999 Year Established: 1998 # of Farm Projects: 3 1211 South Eads Street Fax: N/A Arlington, VA 22202 # of Biogas Projects: 15 Email: jgingersoll@ecocorp.com

Website: www.ecocorp.com

ECOCORP has extensive, international experience with the design and implementation of biogas facilities and the production of bio methane as a renewable, alternative fuel. Wet or dry as well as mesophilic or thermophilic anaerobic digestion processes are offered. Biogas upgrading to pipeline quality natural gas, carbon dioxide sequestration, organic fertilizer processing, and waste water treatment are also integral parts of the ECOCORP process. Services include project feasibility studies, substrate selection, sampling and testing, permitting, engineering, construction support and/or management, start-up support, commissioning, facility operation and management. Additional services include greenhouse gas offset calculations and carbon credit verification. Clients include agricultural and industrial entities as well as communities and municipalities. The ECOCORP team of engineers, scientists and managers has been involved in the realization of over 15 large commercial biogas installations and several smaller ones, has a broad area of expertise, and will tailor the anaerobic digestion process and biogas facility design to meet the unique needs of your project.



Page 25 of 60

Ecovation, Inc. (subsidiary of Ecolab)

Waste Solutions Group

Fax: N/A

Victor, NY 14564 Websites

Website: www.ecolab.com/sustainability/

water-stewardship

Ecovation, Inc. delivers treatment of organic waste streams using proprietary and patented technologies that create opportunities for renewable energy utilization. Methane gas produced by the company's patented process is used at its treatment sites to operate boilers that heat wastewater for treatment. The methane can also be cleaned and used as a natural gas alternative.

EISENMANN Corporation

Tom Gratz

Tel: (815) 455-4100

Year Established: 1977

150 E. Dartmoor Drive

Fax: N/A

Crystal Lake, IL 60014

Email: es.info@eisenmann.com

of Biogas Projects: 80

Website: www.eisenmann.us.com

EISENMANN Corporation's proprietary BIOGAS technology utilizes anaerobic digestion to convert high solid waste organics to biogas. The biogas can either be directed to a combined heat and power (CHP) system to produce electrical power or it can be cleaned/compressed and fed into the natural gas pipeline or utilized as a transportation fuel alternative.

Efficient Energy, LLC

Daniel Modisette

Tel: (209) 852-9874

Year Established: 2008

5999 Arbolada Drive

Fax: N/A

of Farm Projects: 0

La Grange, CA 95329

Email: dan@efficientenergy-llc.com

of Biogas Projects: 0

Website: N/A

Efficient Energy is a renewable energy consultancy that acts as a client advocate for substantial projects where the energy cost savings pay the systems costs in less than 5 years.

entec biogas USA

Thomas Gratz
Tel: (812) 865-3232
Year Established: N/A
4520 North State Road 37
Fax: (812) 865-1490
of Farm Projects: 20
Orleans, IN 47112
Email: tom.gratz@layne.com
of Biogas Projects: 40

Website: www.entecbiogasusa.com

With the increased global emphasis placed on energy and the environment today, there has never been a better time to implement responsible, efficient waste management strategies. To address this challenge, Layne Heavy Civil. of Orleans, Indiana and entec biogas gmbh of Fussach, Austria, have partnered together as entec biogas USA. Offered exclusively in North America through a teaming agreement, entec biogas USA combines the benefits of proven European biogas technology with the full service capabilities of a nationally recognized construction company. Speciliazing on the design of mid and large scale biogas plants, entec biogas USA has significant experience with a wide range of applications: agriculture industry, food, and bio waste collecting and processing companies, food production industry (solid waste/waste water), abattoirs, rendering plants, distilleries, bioethanol and biodiesel producers, and municipal digester plants. Projects performed by entec biogas USA are delivered in a performance based Engineer Procure Construct (EPC) package.



Environmental Developers, Inc.

Herman P. Miller III, PE Tel: (707) 945-0149 Year Established: 1995 # of Farm Projects: N/A P.O. Box 2964 Fax: N/A Yountville, CA 94599 # of Biogas Projects: 1 Email: HPMiller3D@aol.com

Website: N/A

Environmental Developers, Inc. developed a patented technology that has the smallest, fastest, and most efficient BioWaste to energy conversion with pure water and automatic carbon dioxide sequestering attributes; is completely enclosed; requires no waste ponding; and environmentally clean.

Environmental Energy & Engineering Company

Tel: (360) 923-2000 Year Established: 1991 Dennis Burke # of Farm Projects: N/A 6007 Hill Road NE Fax: (360) 923-1642 Olympia, WA 98516 Email: dennis@makingenergy.com # of Biogas Projects: N/A

Website: www.makingenergv.com

Environmental Energy & Engineering Company, formerly Cyclus Envirosystems (a division of Western Environmental Engineering), solves waste management problems through innovative process technologies. The company developed and patented new anaerobic and flotation processes that solve waste management problems at significantly less cost and with better capture of components.

Environmental Products & Technologies Corporation (EP&T)

Tel: (559) 201-6484 Marvin Mears Year Established: 1996 4216 S. Mooney Boulevard Fax: (818) 992-7529 # of Farm Projects: 3 Suite 131 Email: marvin@eptcorp.com # of Biogas Projects: 3

Visalia, CA 93277 Website: www.eptcorp.com

Environmental Products & Technologies Corporation's (EP&T) Closed-loop Organics Management System (CLOMS) technology is a combination of patented and licensed technologies that use anaerobic digestion and bioreactor technology to take organic feedstock (manure, food waste, waste oils, and greases) to generate biogas (methane) which is conditioned and injected into the utility gas line distribution system or can be delivered to third party buyer via tube trailers. The solids from the CLOMS technology process are made into organic certified compost for commercial and residential use. The CLOMS creates renewable energy from a base source that is available 24 hours a day, seven days a week, every day of the year.

Environmental Systems

Steven Childs Tel: (316) 652-0479 Year Established: 2009 9211 East Harry #2110 Fax: (316) 652-0479 # of Farm Projects: N/A Wichita, KS 67207 Email: stevenlchilds@aol.com # of Biogas Projects: N/A

Website: www.environmentalsystems.info

Environmental Systems was founded by an environmental engineer experienced in site remediation. It provides crews for installation of subsurface drip irrigation systems as well as the management of livestock waste, including capture of biogas.

Fagen, Inc.

Steven P. Stokke Year Established: 1988 Tel: (320) 564-3324 501 Hwy 212 West Fax: (320) 564-3278 # of Farm Projects: 2 Granite Falls, MN 56241 Email: sstokke@fageninc.com # of Biogas Projects: 2

Website: www.fageninc.com

Fagen, Inc. was founded on the principle of making its clients successful. From local, agricultural grassroots initiatives to construction management for Fortune 500 companies, Fagen, Inc. has the broad range of skills and services necessary to be a single source contractor.



Farm Power Northwest, LLC

Kevin Maas Tel: (360) 424-4519 Year Established: 2007 Fax: N/A 1934 South Wall Street # of Farm Projects: 1 Mount Vernon, WA 98273 Email: farmpowernw@gmail.com # of Biogas Projects: 1

Website: www.farmpower.com

Farm Power Northwest, LLC organizes, owns, and operates community anaerobic digesters. Our first project processes manure from two neighboring dairy farms and compensates them with enough digested fiber to bed their cows. Farm Power has gained significant expertise by doing all its own feasibility-study, grant-writing, permitting, financing, political, and regulatory work.

First Carbon Credits Corporation

Tel: (403) 556-0605 Robert Coulter Year Established: 2010 5912-60 Street Olds Fax: (888) 719-6091 # of Farm Projects: 50 Alberta, Canada T4H1Y2 Email: robert.coulter@shaw.ca # of Biogas Projects: 3

Website: N/A

Robert Coulter and his partners have introduced the process of viewing waste generated from one process as an energy or food source for another, providing environmentally friendly methods to the agricultural community. They called this technique "the closed loop." In 2003, Mr. Coulter as part of a team completed a Manure Management study on behalf of Canadian Forage, using Canadian Agricultural and Rural Diversification - Saskatchewan district grants. This report evaluated three manure management styles: covered lagoons, anaerobic digestion, and composting. Robert Coulter is an environmental pioneer with significant name recognition in the field of agricultural ecology. He has steadfastly evolved the ECC business model for carbon credits trading over many years, beginning with his early environmental work in 1999 and gradually refining his systems and procedures to meet the needs of a rapidly expanding global industry.

Greentech Overseas Development Fund, Inc.

Tel: (212) 252-2640 Year Established: 2009 244 5th Avenue, Suite G-204 Fax: (845) 371-9098 # of Farm Projects: 1 New York, NY 10001 Email: kinza@greentechodf.com # of Biogas Projects: 3

Website: www.greentechodf.com

Greentech Overseas Development Fund, Inc. comprises developers of anaerobic digestion, cogeneration, and fertilizer manufacturer. They also conduct projects for agriculture and industry.

Hanusa Renewable Energy

Duane Hanusa Tel: (608) 356-5078 Year Established: 2004 E 12678 Hwy W Fax: N/A # of Farm Projects: N/A Baraboo, WI 53913 Email: duanehanusa@gmail.com # of Biogas Projects: N/A

Website: N/A

Hanusa worked for four years developing Alliant Energy's Digester Program projects, and developed four farm projects. They determined there is a need for projects on smaller farms in the 150-500 cow range.

Hoffland Environmental, Inc.

Robert Hoffland Tel: (936) 856-4515 Year Established: 1970 10391 Silver Springs Road Fax: (936) 856-4589 # of Farm Projects: 2 Email: rh@hoffland.net # of Biogas Projects: 6 Conroe, TX 77303

Website: hoffland.net/

Hoffland Environmental Inc. is a developer of technology that turns animal waste into electricity. The first USA plant is in North Carolina and utilizes swine waste (manure) to create a biogas that, in turn, is sent to a gen-set to produce electricity for the grid. This Wayne County, North Carolina facility will eventually have a rated nameplate capacity of 4.99 Megawatts.



KEAN Engineering, Inc.

Tel: (207) 225-3688 Year Established: 2007 Kirk Nadeau Fax: N/A # of Farm Projects: N/A P.O. Box 303 Email: knadeau@keanengineering.com Turner, ME 04282 # of Biogas Projects: N/A Website: www.keanengineering.com

KEAN Engineering is a New England based firm specializing in project development, project management, project engineering, and maintenance engineering. The company is actively developing AgEnergy and Wind Energy projects in New England.

Micro-Bac International

Tel: (512) 310-9000 Stephen R. Harden Year Established: 1979 # of Farm Projects: 2 3200 N. IH 35 Fax: (512) 310-8800 Round Rock, TX 78681-2410 Email: mail@micro-bac.com # of Biogas Projects: 2

Website: www.Micro-Bac.com

Micro-Bac International is a biotechnology company specializing in microbial solutions that biodegrade hydrocarbon contaminants.

Modern Technology Methods, LLC

Billy Ivy Year Established: 2009 Tel: (404) 287-2624 # of Farm Projects: 2 P.O. Box 3292 Fax: (404) 287-2624 Thompson Bridge Road #276 # of Biogas Projects: 2 Email: info@moderntechnologymethods.com

Gainesville, GA 30506 Website: N/A

Modern Technology Methods, LLC products and services include the following: project engineering feasibility: economic analysis studies; engineering, procurement and construction; environmental engineering; permitting; 3rd party ownership; project development: long-term service agreements: and O&M.

Offering thermophilic poultry anaerobic digestion systems designed to cleanly and efficiently convert waste into high quality methane gas with commercial, industrial, and agricultural applications. Modern Technology Methods, LLC offers cogeneration facilities providing a dedicated energy supply designed specifically to deliver facility energy savings with increased reliability. We deliver all aspects of onsite generation. With representatives across the southeast USA, Modern Technology Methods, LLC is committed to the renewable/sustainable energy business.

MT-ENERGIE USA, Inc.

Tel: (661) 829-6900 Year Established: 1995 **Daniel Mann** 4915 Calloway Drive # of Farm Projects: 140+ Fax: (661) 829-6901 Suite 102 # of Biogas Projects: 140+ Email: biogas-us@mt-energie.com

Bakersfield, CA 93312 Website: www.us.mt-energie.com

MT-ENERGIE USA, Inc. is a subsidiary of MT-ENERGIE Germany. MT-ENERGIE designs, builds, and maintains anaerobic digesters and biogas-upgrading/injection systems for North America. MT-ENERGIE helps to produce clean biogas from organic waste and for this task employs the most advanced and proven technology available today. MT-ENERGIE USA delivers costeffective, suitable, and profitable solutions for the American agriculture and renewable energy industry. MT-ENERGIE Germany is proud of more than 15 years of experience in the industry, has built more than 140 turn-key biogas facilities, and is one of the leading biogas companies in Europe. MT-ENERGIE Germany has subsidiaries in six European countries and in the United States.



National Methane

William J. Lingo, Sr. Tel: (937) 226-0340 Year Established: 1986 1823 Leo Street Fax: (937) 226-0340 # of Farm Projects: 27 Email: bilingo5@netzero.com # of Biogas Projects: 31 Dayton, OH 45404

Website: N/A

National Methane consults, designs, and builds entire systems of multiple benefit anaerobic digesters and CaCO3.

Northern Biogas

Grant Grinstead Tel: (920) 948-3216 Year Established: 2009 P.O. Box 643 Fax: (866) 301-3075 # of Farm Projects: 9 Fond du Lac, WI 54936 Email: info@northernbiogas.com # of Biogas Projects: 9

Website: www.northernbiogas.com

Northern Biogas was formed by a professional group including Wisconsin dairy producers and licensed engineers. Its purpose is to design, build, and manage renewable energy projects specifically for the dairy and agricultural industry. The goal of Northern Biogas is to provide a reliable and affordable anaerobic digester system that manages waste and odor with economic value to the owner and community. Its professional services include system design and engineering, construction management, feasibility studies, grant applications, permitting assistance, comprehensive operations training, and ongoing operations and maintenance.

Organic Alchemy

Hope Blaythorne

711 Moulder Loop Road Tel: (215) 862-0784 Year Established: 2007 Smith's Grove, KY 24171 # of Farm Projects: 1 Fax: N/A Email: hope@organic-alchemy.com # of Biogas Projects: 1

Website: N/A

Organic Alchemy creates continuous process digesters with more efficient methane capture processes and highly efficient cycle times.

PacaPower, LLC

Michelle Rehmann Tel: (303) 717-5236 Year Established: 2009 7353 Lowell Blvd. Fax: N/A # of Farm Projects: 2 Westminster, CO 80030 Email: pacapower@live.com # of Biogas Projects: 5

Website: N/A

PacaPower, LLC is a woman-owned small business engaged in consultation for design and development of sustainable renewable energy projects for the Alpaca ranching industry. The principals have innovated approaches for meeting the demands of diverse environmental, energy development, and carbon reduction projects, while adapting to legal, technical and social forces that have generated regulatory change, environmental awareness, and global energy demands. PacaPower's experience teams with the Alpaca ranching community to develop sustainable anaerobic digester projects that will benefit their industry and surrounding agricultural communities. It is PacaPower's vision that the ultimate development of safe, economic, and environmentally friendly Alpaca waste digester projects, that are scalable to ranch requirements or agricultural communities, will bring sustainable green energy projects to support a variety of their state's agricultural sectors and communities.

Phinix, LLC

Dr. Subodh Das Tel: (859) 619-8386 Year Established: 2008 # of Farm Projects: 1 Fax: (859) 523-9398 P.O. Box 11668 Lexington, KY 40577-1668 # of Biogas Projects: 1 Email: skdas@phinix.net

Website: www.phinix.net

Phinix, LLC provides carbon management services for manufacturing, agricultural and renewal energy sectors, including, anaerobic digesters, and energy and electricity production from dairy and landfill methane.



PlanET Biogas USA Inc.

Andrea Steed Tel: (877) 266-0994 Year Established: 1998 5937 State Route 11 Fax: (905) 935-7498 # of Farm Projects: 200 Homer, NY, 13077 Email: contact-usa@planet-biogas.com # of Biogas Projects: 300+

Website: www.planet-biogas-usa.com

The name PlanET stands for "Planning and Application of Energy Technology". PlanET ranks among the leading biogas plant builders worldwide, designing, constructing and servicing more than 300 anaerobic digestion systems. PlanET started more than 10 years ago, and now has over 150 employees, and 300 operating biogas plants.

Positive Energy Alternatives, LLC

Delroy Leslie Tel: (715) 664-6162 Year Established: 2004 P.O. Box 11 Fax: (715) 232-8824 # of Farm Projects: N/A Menomonie, WI 54751 Email: info@posengalt.com # of Biogas Projects: N/A

Website: www.posengalt.com

Positive Energy Alternatives, LLC determines biogas supply; scopes out the project; conducts feasibility analysis; determines digester type; selects equipment; creates a financial pro forma; negotiates the Utility Agreement; obtains environmental and site permits; gains regulatory approval; assists in the research of financing; contracts with engineering, construction, and equipment supply firms; supervises the construction of the digester; identifies potential customers for mulch and fertilizer; and provides equipment maintenance.

Pro-Act Biotech

Bill Donohue Tel: (800) 772-3775 Year Established: 1999 P.O. Box 345 Fax: (401) 633-6270 # of Farm Projects: 1 Warren, RI 02885 Email: Bill@proactbiotech.com # of Biogas Projects: 100+

Website: www.proactbiotech.com

Pro-Act Biotech (formally known as Pro-Act Microbial, Inc.) is a developer of anaerobic digesters for small farms. The digester is designed for comprehensive manure treatment to enhance fertilizer value, reduce odor, and collect biogas for on-farm use. In addition, Pro-Act provides after-installation services for digester owners and developers to trouble shoot digester problems for a more stable and/or enhanced gas production through its line of custom microbes and other products.

Proteus Energy Development, LLC

Jon Gordon James Tel: (757) 220-2129 Year Established: 2010 104 Crocker Place Fax: N/A

of Farm Projects: N/A Williamsburg, VA 23185 Email: j.g.james@cox.net # of Biogas Projects: N/A

Website: N/A

Proteus Energy Development, LLC offers alternative energy development.



Quantum BioEnergy USA

Tel: (727) 432-0400 Bill Beckett Year Established: 2003 Fax: (727) 446-7893 Lionel Freedman # of Farm Projects: 3 Email: wbeckett1@tampabay.rr.com Lea Beckett

of Biogas Projects: 3

650 North 250 West Website: N/A

Tetonia, ID 83452

Quantum BioEnergy USA is a full service funding, design, installation, service, and maintenance provider of biomass to energy systems for the dairy, swine, poultry, abattoir, and food processing industries.

quasar energy group, LLC.

Tel: (216) 986-9999 x112 Year Established: 2005 Mark Suchan Fax: (216) 986-9999 # of Farm Projects: 161 7624 Riverview Road Email: msuchan@quasareg.com Cleveland, OH 44131 # of Biogas Projects: 204

Website:

http://www.quasarenergygroup.com

quasar energy group is recycling energy in North America from organic wastes. Based in Cleveland, Ohio, quasar is a full service waste-to-energy company with a superior laboratory and engineering facility at The Ohio State University's Ohio Agricultural Research and Development Center (OARDC) campus located in Wooster, Ohio. quasar designs, builds, owns and operates anaerobic digestion facilities using U.S. components to produce renewable energy.

Regenis

Kyle Juergens Tel: (866) 578-8630 Year Established: 2014 # of Farm Projects: 13 P.O. Bos 2708 / 6920 Fax: (360) 366-5800 Salashan Parkway A-102 # of Biogas Projects: 13 Email: kylej@regenis.net Ferndale, WA 98248

Website: www.regenis.net/

RealEnergy, LLC

Year Established: 2000 Tel: (707) 944-2400 Kevin Best Fax: (707) 944-2420 # of Farm Projects: 30 6712 Washington Street Email: kbest@realenergy.com # of Biogas Projects: 30 Yountville, CA 94599

Website: www.realenergy.com

RealEnergy, LLC has developed, built, owned, and operated more small, clean and green onsite power plants than any other independent power producer or distributed energy developer in North America. The management team has developed 43 discrete in-city power plants with electric grid interconnections, and is laser focused on investing in clean, distributed, and renewable power plants, including biogas plants and profiting at exit.

Stellar Cascade Energy

Tel: (406) 579-6164 Year Established: 2010 Mike Costanti # of Farm Projects: N/A Fax: (866) 903-9951 1363 Down River Drive Email: Woodland, WA 98674

of Biogas Projects: 6 mcostanti@cascadeenergypartners.com

Website: N/A

Stellar Cascade Energy looks for late-state opportunities to develop, finance, construct, and operate dairy digester projects in the West.



Sustainable Technologies

Year Established: 1999 Tel: (510) 523-1122 Ernesto Montenero Fax: (510) 523-1123 # of Farm Projects: 1 1800 Orion Street Suite 101 Email: ernesto@sustainabletech.cc Alameda, CA 94501 # of Biogas Projects: 1

Website: www.sustech.cc

Sustainable Technologies (ST) is a small, minority-owned environmental engineering and construction company. ST designs and builds digester, remediation systems, and solar electric systems for business.

Symbios Technologies, LLC

Tel: (970) 797-2543 Year Established: 2008 Justin Bzdek Fax: (970) 797-2546 # of Farm Projects: N/A 200 W. Mountain Avenue Email: justin@symbiostechnologies.com Suite C-104 # of Biogas Projects: N/A

Website: www.symbioenergy.com Fort Collins, CO 80521

Symbios Technologies LLC is a waste-to-energy project developer working to reduce clients' greenhouse gas impacts while improving waste disposal and energy economics. Clients include municipalities, animal and food processing plants, and animal feeding operations. Symbios uses proprietary process simulation and design software to evaluate, design, and optimize integrated renewable energy facilities to produce clean energy and water, organic fertilizer, and other valuable products from waste. Symbios integrates public and private funding, on-the-ground engineering, and technology to make waste-to-energy projects economically feasible.

Team Gemini

Douglas Haughn Tel: (407) 459-8550 Year Established: 2011 121 S. Orange Avenue Suite Fax: N/A # of Farm Projects: N/A 1600 N Email: # of Biogas Projects: N/A

Orlando, FL 32801 doug.haughn@teamgemini.us Website: www.teamgemini.us/

Team Gemini LLC (TG) is a sustainable project design and development company that develops community-based technology clusters featuring sustainable agriculture, renewable energy, and resource recovery and recycling. TG fulfills the design and development; engages the relevant manufacturers, contractors, and sub-contractors; and brings together the stakeholders and experts needed for implementation and long-term management of each project. Areas of knowledge include systems design for AD and related biomass, biogas and other bioenergy technologies from Europe.

UEM Group Inc.

Nina Kshetry Tel: (561) 294-0138 1818 S Australian Avenue Fax: (561) 683-2996

of Farm Projects: 2 Suite 110 # of Biogas Projects: 100 Email: nkshetry@uemgroup.com West Palm Beach, FL 33409

Website: www.uemgroup.com

UEM Group Inc. is an international multi-disciplinary environmental services firm, specializing in providing turn-key design, construction, and O&M services in water and wastewater treatment for industries and municipalities. One of UEM's core wastewater solution offerings is anaerobic digestion. UEM has a long history in providing anaerobic digestion solutions, starting with distillery waste digesters in the 1980s. Since then, UEM's portfolio of projects has expanded to include a diverse variety of waste including industrial waste, food processing waste, slaughter house waste, agricultural waste, sewage sludge, and several other high organic content waste streams. UEM has executed over 100 digester projects worldwide.

Note: Listing in this directory does not imply endorsement by EPA.

Year Established: 1990



Valley Air Solutions, LLC

Year Established: N/A Robert Patrick Tel: (877) 430-7600 P.O. Box 4517 # of Farm Projects: N/A Fax: (877) 430-7600 Stockton, CA 95204 # of Biogas Projects: N/A

Email: robert.patrick@valleyairsolutions.com

Website: N/A

Valley Air Solutions, LLC offers expertise and solutions to dairy waste problems and assistance with revenue-producing opportunities. They design and build digesters, anaerobic lagoons, and biogas cleaning systems.

Waterleau

Laetitia d'Ursel Tel: (714) 727-7607 Year Established: 2000 # of Farm Projects: 15 1300 Adams Ave. # 32P Fax: N/A Costa Mesa, CA 92626 # of Biogas Projects: 350 Email:

> laetita.dursel@waterleau.com Website: www.waterleau.com

Waterleau is one of the few global players with a complete portfolio of environmental protection patented technologies, including treatment of wastewater, sludge, polluted air, waste, production of process water or drinking water, energy recovery applications and generation of renewable energy from waste or biomass through anaerobic digestion. With more than 350 environmental engineers and specialists, we provide services from technology development, consultancy, design, engineering, procurement and construction to operations and maintenance. Technological packages, turn-key plants or BOOT solutions are available in all fields, with a proven track record of over 1.500 references in more than 80 countries.

Williams Engineering Associates

Tel: (530) 669-7236 Year Established: 1985 **Doug Williams** # of Farm Projects: 10 18039 Blue Winged Court Fax: (530) 669-7982 Woodland, CA 95695 # of Biogas Projects: 10 Email: wmsengr@thegrid.net

Website: N/A

Williams Engineering Associates has been in the business of design, feasibility, research, and supervision of start-up of anaerobic digesters for on-farm operations for 23 years. Doug Williams, principle and owner was a professor of BioResource and Agricultural Engineering for 22 years at Cal Poly.

Yield Energy, Inc.

Rolfe Philip Tel: (425) 273-4325 Year Established: 2007 Fax: (425) 273-4325 # of Farm Projects: 2 49040 SE Middle Fork Road Email: rolfe.philip@yieldenergy.com # of Biogas Projects: 10 North Bend, WA 98045

Website: www.yieldenergy.com

Yield Energy, Inc. is focused on designing, developing, constructing, and providing ongoing operational assistance to farm-based anaerobic digestion facilities that intend to utilize off-farm feedstock's to supplement biogas production. They have developed a sophisticated anaerobic digester simulation tool, substrate testing, and micro nutrient supplement regime that ensures optimal biogas production and stable plant operations. Yield offers self-cleaning in-tank systems for grit & light plastic removal which ensures continual digester operation and efficiency. Yield is also launching a new product in 2014, the APAS unit, which is an inline bicarbonate testing unit for operational digesters. This unit assists plant operators in maximizing biogas yield from operational digesters by removing the manual process required for testing biological characteristics of the in situ digestate.

AgSTAR Vendor Directory 2015



Energy Service Providers

Alliant Energy Corporation

Tel: (608) 742-0888 Year Established: 1998 2777 Columbia Drive Fax: (608) 742-0890 # of Farm Projects: 3 Portage, WI 53901-9483 # of Biogas Projects: 6

Email: customercare@alliantenergy.com

Website: www.alliantenergy.com

Headquartered in Madison, Wisconsin, Alliant Energy Corporation is a growing energy-service provider with operations in the United States and abroad. The company provides electric, natural gas, water, and steam services to nearly three million customers worldwide.

Alternative Carbon Resources, LLC

Tel: (319) 333-2000 Year Established: 2010 Zack Hedrington Fax: (888) 316-0829 # of Farm Projects: 6 2047 Hickory Trail Email: zach@alternativecarbonresources.com # of Biogas Projects: 10 Pella, IA 50219

Website: N/A

Alternative Carbon Resources, LLC provides all different kinds of feedstock to anaerobic digesters for conversion into methane and subsequent energy generation. They deliver anywhere in the United States, and can be a huge asset for an operation trying to get off the ground or increase capacity.

Eco-Cure, Inc.

Tel: (888) 924-8450 Year Established: 2000 Jim Kritchever Fax: N/A # of Farm Projects: 10 1525 Casa Buena Drive. Suite D Corte Madera CA 94925 # of Biogas Projects: 10 Email: jimkritchever@yahoo.com

Website: www.eco-cure.com

Eco-Cure, Inc. is a producer of an enzyme product that increases methane, reduces H2S, and shortens retention time.

Santee Cooper

Elizabeth Kress Tel: 843-761-8000 Year Established: 1934 Fax: N/A PO Box 2946101 # of Farm Projects: N/A Moncks Corner, SC 29461 Email: eakress@santeecooper.com # of Biogas Projects: N/A

Website: www.santeecooper.com

Santee Cooper is a public power authority of the State of South Carolina; it has developed numerous renewable energy projects across the state including biomass digesters.

Smart Drilling Tech

Mahicon Astuyauri Tel: N/A Year Established: N/A 504 Plaza Village Drive Fax: N/A # of Farm Projects: N/A Lafayette, LA 70506-5118 Email: mahj ast@hotmail.com # of Biogas Projects: N/A

Website: N/A

Smart Drilling Tech specializes in drilling and energy.



Financing Specialists

Cat Power Finance

Paul Owen Tel: (615) 341-8626 Year Established: 1981 2120 West End Avenue Fax: (615) 341-8027 # of Farm Projects: 5 Nashville, TN 37203 Email: Paul.Owen@cat.com # of Biogas Projects: 20+

Website: www.catpowerfinance.com

Cat Power Finance offers financial services for renewable energy projects utilizing Caterpillar power generation equipment.

Climate Action Reserve

Tel: (213) 542-0295 Year Established: 2001 Scott Hernandez Fax: (213) 623-6716 # of Farm Projects: 57 601 West 5th Street. Suite 650 Los Angeles, CA 90071 Email: shernandez@climateactionreserve.org # of Biogas Projects: 194

Website: www.climateactionreserve.org

The Climate Action Reserve is a national offsets program working to ensure integrity, transparency, and financial value in the U.S. carbon market. It does this by establishing regulatory-quality standards for the development, quantification and verification of greenhouse gas (GHG) emissions reduction projects; issuing carbon offset credits generated from such projects; and tracking the transaction of credits over time in a transparent, publicly- accessible system. The Reserve's Livestock Project Protocol and Organic Waste Digestion Protocol allow for the generation of credits by projects that install new biogas control systems to digest livestock manure, MSW food waste, and certain other agro-industrial wastewater streams. There is also a version of the Livestock protocol for use in Mexico, and one under development for Canada.

Consortium Capital

Year Established: N/A Stefan Kershow Tel: (202) 478-7557 # of Farm Projects: N/A 3299 K Street NW, Ste. 700 Fax: (202) 333-3323 # of Biogas Projects: N/A Washington, DC 20007

Email: skershow@consortiumcapital.com Website: www.consortiumcapital.com

Consortium Capital is a specialized finance company with a focus on tax credits. It is a project finance company with a renewable energy group that will invest in and selectively co-sponsor biogas projects.

AgSTAR Vendor Directory 2015 Financing Specialists



Edgewood Holdings

457 Cider Mill Road Tel: (802) 462-3483 Cornwall, VT 05753 Fax: (802) 462-3217

Email:

investments@edgewoodholdings.com Website: edgewoodholdings.com

Edgewood Holdings is a private equity firm that finances biogas projects.

Year Established: N/A # of Farm Projects: N/A # of Biogas Projects: N/A

Environmental Credit Corp. (ECC)

Tel: (630) 326-9299 Sharad Deshpande Year Established: 2005 # of Farm Projects: 50+ 1070 Cleveland Avenue Fax: N/A Batavia, IL 60510 # of Biogas Projects: 50+ Email: sharaddesh@hotmail.com

Website: www.envcc.com

Environmental Credit Corp. (ECC) partners with farmers to build and operate lagoon covers and biogas systems to reduce greenhouse gas emissions and create renewable energy. By covering the existing lagoons, two sources of revenues are createdrenewable energy and carbon credits. In most cases, ECC pays for installation and operation of the system.

Everest Financial Network

Year Established: 2001 Lee Burnett Tel: (303) 948-9999 # of Farm Projects: N/A 5668 Red Fern Court Fax: (303) 948-2242 Suite 300 # of Biogas Projects: N/A Email: leeburnett@e-f-n.com

Littleton, CO 80125 Website: www.e-f-n.com

Everest Financial Network and its affiliates have arranged over \$3 billion of agriculture, municipal, and commercial funding. It is seeking opportunities for the development of integrated manure wastewater processing systems. Project and term financing is available including both hard and soft costs; therefore, financing is available for anaerobic digesters, gensets, loaders, piping. pumps, power inverters, and engineering and consulting expenses. Everest Financial Network is eager to assist in arranging the optimum blend of private and public financing for the installation.

Meridian Capital Investments, Inc.

Year Established: 1988 Gino Hellizer Tel: (301) 983-5000 # of Farm Projects: N/A 10220 River Road Fax: (301) 983-9012 # of Biogas Projects: 2 Potomac, MD 20854 Email: info@meridianinvestments.com

Website: www.meridianinvestments.com

Meridian Capital Investments, Inc. is the largest provider of tax credit equity in America. Since 1992, the company has underwritten over \$8 billion worth of federal tax credits. Meridian Investments has experience in all major federal tax credit programs, including sections 42, 29, and 45. The company provides information on selling credits to clients with plants that currently generate or will be generating a qualifying fuel under section 29 or 45 of the IRC.

AgSTAR Vendor Directory 2015 Financing Specialists



NativeEnergy, Inc.

Brian Killkelley 3 Main Street, Suite 212 Burlington, VT 05401 **Tel:** (802) 861-7707 **Fax:** (802) 861-7717

Email: brian.killkelley@nativeenergy.com

Website: www.nativeenergy.com

of Farm Projects: 6 # of Biogas Projects: 1

Year Established: 2001

Year Established: 2000

of Farm Projects: N/A

of Biogas Projects: N/A

Year Established: 1989

of Farm Projects: N/A

of Biogas Projects: N/A

NativeEnergy, Inc. is a U.S. marketer of carbon credits and renewable energy credits (REC). NativeEnergy directly sources from qualified renewable energy projects including wind, farm based anaerobic digesters, and landfill gas, typically under long-term forward purchase contracts. The resulting carbon offsets and RECs are sold to business customers and individuals.

Sterling Planet

Doug Mitchell/Tim Swanson 3500 Parkway Lane, Suite 500 Norcross, GA 30092 **Tel:** (678) 650-7500 **Fax:** (678) 325-3174

Email: dmitchell@sterlingplanet.com

Website: www.sterlingplanet.com

Sterling Planet is a national leader in retail sales of renewable energy, both in the regulated and voluntary markets. As the nation's leading retail Renewable Energy Certificate (REC) provider, Sterling Planet supports hundreds of renewable projects nationwide. Sterling Planet was the first company to offer RECs to every U.S. home and business as a way to support sustainable energy production that benefits the environment, the economy and society in general. It also helps utilities develop green pricing programs for their customers, manage their REC portfolios, and sell their excess RECs to other utilities or purchase RECs to satisfy their own voluntary or mandated portfolio requirements. By leveraging ten years of experience and expertise in REC markets, Sterling Planet can manage the full cycle of project documentation, fulfillment, tracking and delivery – allowing generators to focus on their core business.

Vermont Energy Investment Corporation

Paul Scheckel 244 South Champlain St Burlington, VT 05401 Tel: (802) 456-7097
Fax: (802) 658-1643
Email: scheckel@sover.net

Website: www.veic.org

Vermont Energy Investment Corporation (VEIC) focuses on financing programs related to energy efficiency. VEIC is looking for ways to participate with the state of Vermont's project to initiate a farm-based methane digester program.

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Manufacturers/Distributors of Covers

COMANCO

Artemas Larry Holmes III Tel: (813) 988-8829 Year Established: 1989 4301 Sterling Commerce Dr. Fax: (813) 988-8779 # of Farm Projects: 25 Plant City, FL 33566 Email: lholmes@comanco.com # of Biogas Projects: 14

Website: www.comanco.com

COMANCO specializes in the fabrication and installation of geosynthetic membranes associated with covered lagoons and anaerobic digesters an addition to various other waste and wastewater related applications. COMANCO operates from offices located in Florida, California, Louisiana, Nevada, and Ohio.

Dennis Gerber, Consultant

Dennis Gerber Tel: (408) 395-9020 Year Established: N/A 15870 Rose Avenue Fax: (408) 395-9020 # of Farm Projects: N/A Los Gatos, CA 95030 Email: dhgerber@comcast.net # of Biogas Projects: N/A

Website: N/A

Mr. Gerber designs and installs anaerobic digester covers. His Gas Collecting Floating Cover design, which holds a U.S. Patent, is the de-facto standard for flexible membrane anaerobic digesters.

EC Applications, Inc. (ECA)

Christopher Fore Tel: (714) 921-9848 Year Established: 2005 Fax: (866) 475-1225 # of Farm Projects: 28 650 N. Batavia Street Email: cfore@biogascovers.com # of Biogas Projects: 6 Orange, CA 92868

Website: www.biogascovers.com

EC Applications, Inc. (ECA) designs, supplies, and installs geosynthetic materials (liners and covers) for use in agriculture biogas projects. With our more than 20 years of experience, ECA will deliver quality, service and value to every project.

Engineered Textile Products, Inc.

Carter Damp Tel: (800) 222-8001 Year Established: 1983 Fax: (888) 222-8277 # of Farm Projects: 13 P.O. Box 7474 Email: cdamp2@aol.com # of Biogas Projects: 20 Mobile, AL 36670

Website: www.etpinfo.com

Engineered Textile Products, Inc. manufactures and distributes lagoon covers. The company manufactured the covers for Martin's Farm, a swine farm with a covered lagoon in South Boston, Virginia, and Palmers Farm, a swine farm with a covered lagoon in Petite Jean Mt., Arkansas.

Environmental Fabrics, Inc.

Dennis Shanklin Tel: (803) 551-5700 Year Established: 1997 85 Pascon Court Fax: (803) 551-5701 # of Farm Projects: 5 Gaston, SC 29053 Email: dshanklin@environmentalfabrics.com # of Biogas Projects: 17

Website: www.environmentalfabrics.com

Environmental Fabrics Inc. has manufactured covers for five farms, including: 1) Dowell Ramsey Farm, a swine farm in Nash County, North Carolina; 2) Gold 'N Plump Poultry, a poultry farm in Cold Springs, Minnesota; 3) Pelican Rapids, a farm in Pelican Rapids, Minnesota; 4) Apex Pork, a swine farm in Rio, Illinois; and 5) Barham Farms, a swine farm in Zebulon, North Carolina.



Firestone Building Products Company

Tel: (800) 428-4442 Year Established: 1987 Jeffrey PanKonie Fax: (317) 575-7002 # of Farm Projects: 20 310 East 96th Street Email: pankoniejeff@firestonesp.com # of Biogas Projects: 2 Indianapolis, IN 46024

Website: www.firestonebpco.com

Firestone Building Products Company manufactures a variety of ethylene propylene diene monomer (EPDM) and RPP geosynthetic products used within the agricultural arena. Firestone Specialty Products Company has a well-established network of independent installers familiar with agricultural applications throughout North America. Firestone geomembranes are engineered to provide dependable performance in a variety of critical containment applications such as livestock pit and ponds, lagoon covers. and digester applications.

Frank Santini Farms

Year Established: N/A Frank Santini Tel: (908) 406 7859 # of Farm Projects: N/A Fax: (908) 454-8710 819 marble hill road Email: santini819@mybluelight.com # of Biogas Projects: N/A Phillipsburg, NJ 08865

Website: N/A

Geomembrane Technologies, Inc. (GTI)

Tel: (506) 452-7304 Year Established: 1991 Darin Evans Fax: (506) 452-6625 # of Farm Projects: 5 5150 Race Court Email: covers@gticovers.com Denver, CO 80216 # of Biogas Projects: 120+

Website: www.gticovers.com

Converting biogas into energy has been a cornerstone of GTI's business for over thirty years. Several custom-designed cover types are offered including floating gas collection covers, structurally supported, and suspended. GTI designs, fabricates, installs, and maintains complete cover and liner systems. These are installed on agricultural, municipal, and industrial wastewater treatment plants, tanks, and lagoons at sites around the world.

Gundle/SLT Environmental (GSE) Lining Technology, Inc.

Tel: (281) 230-8655 Year Established: 1973 Ryan Blanchard Fax: (281) 230-6739 # of Farm Projects: 150+ 19103 Gundle Road Email: rblanchard@gseworld.com # of Biogas Projects: 25+ Houston, TX 77073

Website: www.gseworld.com

Gundle/SLT Environmental (GSE) Lining Technology, Inc. is a leading manufacturer and marketer of geosynthetic lining products and services with a worldwide presence. For over 30 years, people around the world have looked to GSE products to make their projects easier and better. With an expansive line of geomembranes, geosynthetic clay liners, geonets, geocomposites, nonwoven geotextiles, concrete protection, and replicated grass turf products, GSE continues to develop solutions to meet customers' varying project requirements.

Industrial & Environmental Concepts, Inc. (IEC)

Tel: (952) 829-0731 Mike Morgan Year Established: 1989 Fax: (952) 829-9770 # of Farm Projects: 50 6009 Chapel Drive Email: mmorgan@ieccovers.com Minneapolis, MN 55439 # of Biogas Projects: 250

Website: www.ieccovers.com

Industrial & Environmental Concepts, Inc. (IEC) produces and installs five types of floating modular covers for ponds and tanks. IEC's patented systems utilize a variety of geomembranes to provide cost-effective solutions to control problems with heat loss, odor, algae growth, and gas production in basins, ponds, lagoons, or tanks. IEC also installs liners in ponds and tanks.



Year Established: 1978

Layfield Environmental Systems Corporation

 1166 Fesler St. Suite B
 Tel: (800) 377-8404

 El Cajon, CA 92020
 Fax: (619) 562-1150

Fax: (619) 562-1150 # of Farm Projects: N/A
Email: sandiego@layfieldgroup.com # of Biogas Projects: N/A

Website: www.layfieldgroup.com

Layfield Environmental Systems Corporation has provided many years of service to agriculture with pond liners, covers, baffle systems, and many other unique products.

Manure Systems Inc.

Kerry Doyle Tel: (800) 799-3740 Year Established: 2008 3046 McMillan Rd. Fax: N/A # of Farm Projects: 5 Abbotsford. BC V2S6A8 Email: info@manuresystemsinc.com # of Biogas Projects: 5

Website: www.manuresystemsinc.com

MPC Containment

 Edward Reicin
 Tel: (773) 927-4120
 Year Established: 1923

 4834 South Oakley
 Fax: (773) 650-6028
 # of Farm Projects: 50+

 Chicago, IL 60609
 Email: ereic@aol.com
 # of Biogas Projects: 20+

Website: www.mpccontainment.com

MPC Containment designs, fabricates, and installs floating-membrane liner systems, as well as other primary and secondary containment systems. The company also manufactures collapsible storage/pillow tanks for fuel, water, and waste.

MT-ENERGIE USA, Inc.

Daniel Mann

Tel: (661) 829-6900

Year Established: 1995

4915 Calloway Drive, Suite 102

Fax: (661) 829-6901

of Farm Projects: 140+

Bakersfield, CA 93312

Email: biogas-us@mt-energie.com

of Biogas Projects: 140+

Website: www.us.mt-energie.com

MT-ENERGIE USA, Inc. is a subsidiary of MT-ENERGIE Germany. MT-ENERGIE USA produces, installs and distributes covers for digester tanks. MT-ENERGIE Germany has more than 15 years of experience in the industry, completed more than 140 turn-key biogas facilities, and is one of the leading biogas companies in Europe. MT-ENERGIE Germany has subsidiaries in six European countries and in the United States.

Raven Engineered Films

Greg Anderson

Tel: (800) 635-3456

Year Established: 1956

1812 E Ave.

Fax: (605) 331-0333

of Farm Projects: N/A

Sioux Falls, SD 57108

Email: greg.anderson@ravenind.com

of Biogas Projects: N/A

Website: www.ravenind.com

Raven Engineered Films manufactures and fabricates polypropylene covers for agricultural, industrial, and construction applications. They also manufacture railcar liners for the removal of hazardous waste from contaminated sites. Raven has distributors in all 50 states, Canada, and Mexico as well as Europe and Australia.

Reef Industries

Lynn Ciolli
P.O. Box 750250
Fax: (713) 507-4295
Houston, TX 77275
Fmail: ri@reefindustries.com
Fel: (800) 231-2417
Year Established: N/A
of Farm Projects: N/A
of Biogas Projects: N/A

Website: www.reefindustries.com

Reef Industries manufactures and distributes covers for biogas systems.



Shand & Jurs Biogas, An L&J Technologies Co.

Tel: (708) 236-6000 Year Established: 1922 Michael Landato Fax: (708) 236-6006 # of Farm Projects: 5 5911 Butterfield Road Email: mlandato@litechnologies.com Hillside, IL 60162 # of Biogas Projects: 100+ Website: www.litechnologies.com

Shand & Jurs Biogas is a manufacturer of anaerobic digester cover and gas stream safety equipment including pressure and vacuum vents, flame arresters, sediment and drip traps, flame trap assemblies, and waste gas burners.

Varec Biogas

Year Established: 1930 Tel: (714) 220-9924 Regina M. Hanson # of Farm Projects: 30+ Fax: (714) 952-2701 6101 Ball Rd., Suite 201 Email: Regina.hanson@varec-biogas.com # of Biogas Projects: 1000+ Cypress, CA90630

Website: www.varec-biogas.com

Varec Biogas is the world's leading supplier of gas handling and safety equipment to the biogas industry with countless installations in municipal and industrial wastewater treatment plants, and sanitary landfills. The wide range of equipment produced by Varec Biogas includes a comprehensive range of digester cover equipment, inline safety and pressure regulation devices, as well as Varec flare systems, which are unsurpassed in their reliability and flexibility. Varec Biogas has been meeting and exceeding the needs of customers for over 75 years. With a history of innovation and industry leadership, it is no wonder that people turn to Varec Biogas to for the supply of gas safety equipment in on-farm biogas recovery systems.

WesTech Engineering, Inc.

Tel: (801) 290-1191 Year Established: 1972 Matthew J. Williams # of Farm Projects: N/A 3625 S. West Temple Fax: N/A Salt Lake City, UT 84115 # of Biogas Projects: 250+ Email: mwilliams@westech-inc.com

Website: www.westech-inc.com

WesTech Engineering, Inc., an employee-owned company, supplies process equipment for water, wastewater, and industrial applications worldwide. Specific to anaerobic digestion, WesTech's DuoSphere gasholders and covers, and Extreme Duty Digester Mixers provide durable and reliable solutions. WesTech has grown to become one of the major suppliers in the process equipment industry today.

WOG Technologies, Inc.

Tel: (561) 429-6889 Year Established: 2010 **Dev Pandey** # of Farm Projects: N/A 6801 Lake Worth Rd. #215 Fax: (561) 429-6879 Lake Worth, FL 33467 # of Biogas Projects: 15 Email: dpandey@woggroup.com

Website: www.woggroup.com

WOG Technologies Inc. (a part of WOG GROUP) engaged in the water and wastewater treatment plant project, engineering with anaerobic digester cover manufacturing unit located in Florida. They also supply complete anaerobic systems with biogas utilization.



Page 42 of 60

Manufacturers/Distributors of Engines

Capstone Turbine Corporation

Rene M. Flores
Tel: (818) 734-5300
Year Established: 1984
21211 Nordhoff Street
Fax: (818) 734-5385
of Farm Projects: 10+
Chatsworth, CA 91311
Email: rflores@capstoneturbine.com
of Biogas Projects: 50+

Website: www.microturbine.com

Capstone Turbine Corporation manufactures microturbines that can burn biogas with as little as 35%methane content. The currently available biogas model is a 30-kW microturbine that was initially offered for natural gas, propane, oil field waste gas, and diesel. During early 2000, a demonstration test program was conducted with Los Angeles County Sanitation Districts at Puente Hills landfill and at Palmdale wastewater treatment plant. Successful testing during 2000 led to commercial operations at 20 biogas facilities, as of March, 2002, using a total of 117 Capstone microturbines. The Capstone microturbine achieves a combustion efficiency of 99.999%. The patented premix combustion system is uniquely designed to reduce emissions of NOx, CO, and hydrocarbons to extremely low levels.

Caterpillar, Inc.

 Rob Schueffner
 Tel: (309) 578-6376
 Year Established: 1928

 PO Box 610; AC6109
 Fax: (309) 578-7302
 # of Farm Projects: 200

 Mossville, IL 61525
 Email: schuerd@cat.com
 # of Biogas Projects: 50

Website: www.cat.com/products/

For more than 75 years, Caterpillar, Inc. has been building the world's infrastructure. In partnership with Caterpillar dealers, it is driving sustainable change in every continent. A Fortune 100 company, Caterpillar is the world's leading manufacturer of construction and mining equipment, diesel and natural gas engines, and industrial gas turbines. The company is a technological leader in construction, transportation, mining, forestry, energy, logistics, electronics, financing, and electric power generation.

CEC Combustion Safety

January 2015

6907 Brookpark Road Tel: (216) 749-2992 Year Established: 1986 Cleveland, OH 44129 Fax: (216) 398-8403 # of Farm Projects: 2 Email: info@combustionsafety.com # of Biogas Projects: 4

Website: www.combustionsafety.com

CEC Combustion Safety is a distributor for Jasper's alternative fuel automotive derivative packaged engine systems. CEC distributed the engine for two farm-scale biogas projects.

2G CENERGY Power Systems Technologies, Inc.

Michael J. Turwitt

Tel: (904) 579-3217

Year Established: 1995

205 Commercial Drive

Fax: (904) 406-8727

St. Augustine, FL 32092

Fmail: mturwitt@2g-cenergy.com
Website: www.2g-cenergy.com

Website: www.2g-cenergy.com

2G CENERGY Power Systems Technologies Inc. is a U.S. manufacturer of advanced biogas combined heat and power (CHP) cogeneration systems. 2G CENERGY is part of the 2G ENERGY AG Group, the largest biogas energy conversion system manufactures in Germany, publically traded at the Stock Exchange. The company's CHP cogeneration power plants guarantee extreme high energy efficiency, extracted and generated from biogas, landfill gas, sewage gas, coal mine gas, and natural gas. With more than 3,500 biogas CHP systems supplied and in operation, 2G CENERGY offers integrated and commercially attractive solutions, highly efficient biogas power plants, and unmatched experience in the farm digester biogas market. As leading manufacturer 2G CENERGY provides technologically advanced and clean systems to generate electricity and heat, while reducing CO2 emissions and greenhouse gases. All plants are of modular design and manufactured "plug & play connection-ready."



CGP Resources, LLC

Tel: (815) 479-9329 Year Established: 1991 Peter J. Gallegos Fax: (815) 477-9681 # of Farm Projects: 33 4705 Tile Line Road Email: gallegospeter@sbcglobal.net # of Biogas Projects: 80 Crystal Lake, IL 60012

Website: www.tedom.com

CGP Resources, LLC produces gas generator sets and cogeneration based on combustion engines; it also manufactures combustion engines for stationary application for natural gas and biogas.

Charles Equipment Company

Tel: (630) 834-6000 Year Established: 1960 **Bob Conway** Fax: (630) 543-4174 # of Farm Projects: 8 P.O. Box 388 Email: bob.conway@charlesequipment.com # of Biogas Projects: 100+ Addison, IL 60101

Website: www.charlesequipment.com

Charles Equipment Company supplies engines, generator sets, controls, switches and switchgear, and cooling systems for landfill-gas-to-energy (LFGTE) projects. It also provides custom design services and furnishes operating cost studies, layouts, and specifications.

Coffman Electrical Equipment Company

Tel: (616) 452-8708 Year Established: 1947 Greg Mulder 3300 Jefferson SE Fax: (616) 452-1337 # of Farm Projects: 7 Email: gmulder@steadypower.com # of Biogas Projects: 7 Grand Rapids, MI 49548

Website: www.steadypower.com

Coffman Electrical Equipment Company is a distributor of a variety of biogas generators and micro-turbines. It also works as a consultant in directing clients to the best possible digester design for maximum generation capability. It offers a variety of gas scrubbing and material drying systems.

Curtis Engine & Equipment, Inc.

Tom Koch Tel: (410) 536-1203 Year Established: 1946 # of Farm Projects: 2 3915 Benson Avenue Fax: (410) 536-2098 Email: tkoch@curtisengine.com # of Biogas Projects: 8 Baltimore, MD 21227-1516

Website: www.curtisengine.com

Curtis Engine & Equipment, Inc. sells, services, and maintains biogas reciprocating engines; they also develop biogas projects on a turn-key basis.

Energlex Energy Services

Jim Jodice Tel: (303) 373-8100 Year Established: 1968 # of Farm Projects: N/A Fax: (303) 373-0115 11151 E. 51st Ave. # of Biogas Projects: 6 Email: jjodice@enerflex.com Denver, CO 80239

Website: www.enerflex.com

Enerflex Energy Services is a distributor for Waukesha Engines and Generator packages. It is also a manufacturer of customer power generation and gas compression packages.



Energy Choice, Inc.

Manda Schulman Tel: (617) 939-0160 Fax: (617) 939-0176 20 Holland Street, Suite 406A Email: Somerville, MA 02144

manda.schulman@energychoice.com Website: www.energychoice.com

Year Established: 2005 # of Farm Projects: N/A # of Biogas Projects: 1.053

Energy Choice is a supplier of highly efficient modular cogeneration, power generation, and peaking plants. Our state-of-the-art technology provides cost effective and reliable solutions for utility, community, commercial, and industrial customers. Plants can function on various fuel types including biogas (ADG), landfill gas, natural gas, or coal mine gas. The pre-packaged, all-inclusive design streamlines implementation and yields projects that are scalable and customizable.

FlexEnergy, Inc.

Tel: (949) 428-3841 Year Established: 2001 **Gary Joubert** Fax: (949) 450-0567 # of Farm Projects: 1 9601 Irvine Center Drive Email: gary.joubert@flexenergy.com # of Biogas Projects: 5 Irvine, CA 92618 Website: www.flexenergy.com

FlexEnergy, Inc. is developing the Flex-Microturbine® to expand the range of biomass-derived gases that can be converted to electricity. Proof-of-concept testing was successful, and several prototype units are currently being built for testing on dairy digester gas, landfill gas, and producer gas from wood and nutshell gasification. Flex-Microturbine accepts gases at atmospheric pressure. This technology will be commercially available in two years.

Ingersoll Rand (IR)

Holly Emerson **Tel:** (704) 655-4051 Year Established: 1873 Fax: (704) 655-4327 # of Farm Projects: N/A 800A Beaty Street # of Biogas Projects: N/A Email: holly emerson@irco.com Davidson, NC 28036

Website: www.ingersollrand.com/

Ingersoll-Rand (IR) EcoWorks microturbine systems turn digester gas into economical electricity and useful hot water. These compact, integrated cogeneration packages substantially reduce NOx emissions and odors associated with flaring. IR's unique solution includes a fuel conditioner to compress and clean the biogas for reliable long-term operation at very low O&M costs.

Inland Power Group

Tel: (262) 825-5562 Year Established: 1958 Jon Going Fax: N/A # of Farm Projects: 12 210 Alexandra Way Email: jgoing@inlandpowergroup.com # of Biogas Projects: 30 Carol Stream, IL 60197-5942

Website: www.inlandpowergroup.com

Inland Power Group is the Midwest Distributor of GE Jenbacher gas engines. Jenbacher products, ranging from 330 kWe to 3 MWe, are highly developed and tested, and well matched to each customer's specific requirements. Its scope of delivery comprises generator sets for onsite power generation and cogeneration systems for decentralized power and heat supply. Both power systems are also available as fully containerized plants for maximum flexibility.

Kraft Power

Tel: (866) 713-2152 Year Established: 1965 Tom Rodgers # of Farm Projects: N/A 519 W. Second Street Fax: (989) 748-4042 Email: trodgers@kraftpower.com # of Biogas Projects: 48 Gaylord, MI 49735

Website: www.kraftpower.com

Kraft Power provides industrial engine and power generation sales and service. It is also a Waukesha engine distributor.



MacAllister Power Systems

Tel: (317) 860-4410 Year Established: 1945 Chris Cummings Fax: N/A # of Farm Projects: 1 7575 E 30th Street Email: chriscummings@macallister.com # of Biogas Projects: 15 Indianapolis, IN 43219

Website: www.macallisterpowersystems.com

MacAllister Power Systems is a subsidiary of MacAllister Machinery, a Midwestern dealer of Caterpillar equipment. MacAllister Power Systems offers a customized approach to bioenergy projects through equipment sales, local equipment O&M, and turn-key project consultancy.

Martin Machinery, LLC

Tel: (660) 458-7000 Year Established: 1977 Marcus R. Martin # of Farm Projects: 35 Fax: (660) 458-7100 39425 Excelsior Drive Latham, MO 65050 Email: mmartin@martinmachinery.com # of Biogas Projects: 37

Website: N/A

Martin Machinery, LLC first entered the biogas industry in 1982 with the design and construction of 850-kW switch gear to parallel an induction generator to the utility. Additionally, the company supplies electric biogas generator systems 50 to over 1,000 kw. In 2004 Martin Machinery started the company GEN-TEC LLC to build Utility Paralleling gear and the Custom Designed Paralleling Switch Gear. The company currently custom designs new and rebuilt electric generator systems to operate using biogas. It also services biogas units powered by engines with 460-cubic-inch to 7,040-cubic-inch engine blocks.

Northeast Energy Systems

Tel: (215) 335-5010 Year Established: 1994 Fred Farrand # of Farm Projects: 2 8330 State Road Fax: (215) 335-2163 Philadelphia, PA 19136 # of Biogas Projects: 16 Email: ffarrand@neesys.com

Website:

www.pennpowergroup.com/nor theast-energy-systems

Northeast Energy Systems is GE Energy's authorized distributors for Jenbacher gas engine systems throughout the northeastern United States and the Caribbean region. Focused exclusively on gaseous fueled engine and power generation systems, Northeast Energy Systems provides comprehensive application, sales engineering, systems integration, and parts and service capabilities.

TEDOM s.r.o.

Lubos Nedvedicky Tel: +420-568-837-111 Year Established: 1991 # of Farm Projects: 33 Vycapy 195 Fax: +420-568-837-100 Trebic 674 01 # of Biogas Projects: 80 Email: nedvedicky@tedom.cz

Czech Republic Website:

cogeneration.tedom.com

TEDOM is a producer of gas generator sets and cogeneration based on combustion engines. It manufactures combustion engines for stationary application for natural gas and biogas.



US Energy Services (USES)

Jeff Sarrett Tel: (480) 661-1534 Year Established: 1999 # of Farm Projects: N/A 8245 E. Bell Road, Suite #132 Fax: (480) 452-0238 Scottsdale, AZ 85260 # of Biogas Projects: 5 Email: jsarrett@usenergyservices.net

Website: N/A

US Energy Services (USES) provides design/build services for the construction of and/or ownership of clean energy power generation systems. The industries served include, but are not limited to landfill gas, waste water treatment facilities, agriculture and livestock entities, and food waste. Their design/build projects typically combined the design and construction process into a single contract, which results in better client control, expedited construction, reduced costs, and faster return on investment. For their build-own-operate projects this allows USES to reduce its internal construction cost which in turn enhances the "no out-of pocket" program by supplying energy at a reduced cost to the client.

Western Energy Systems (WES)

Tel: (619) 741-4088 Year Established: 1994 Steve Hall # of Farm Projects: 2 499 Nibus Street, Unit B Fax: (619) 374-2346 # of Biogas Projects: 24 Brea, CA 92821 Email: shall@weesys.com

Website:

www.pennpowergroup.com/w estern-energy-systems

Western Energy Systems (WES) is GE Energy's authorized distributor for GE/Jenbacher gas engine systems throughout California, Oregon, Alaska, and Hawaii. Focused exclusively on gaseous fueled engine and power generation systems, WES provides comprehensive application, engineering, systems integration, maintenance, and parts and service capabilities.



Page 47 of 60

Manufacturers/Distributors of System Components

Advanced Systems Technologies, Inc. (ASTI)

 Terry R. Schartel
 Tel: (610) 682-0610
 Year Established: 1983

 P.O. Box 298
 Fax: (610) 682-0605
 # of Farm Projects: N/A

 Mertztown, PA 19539
 Email: CABatASTI@aol.com
 # of Biogas Projects: N/A

Website:

www.advancedsystemstechnologies.com

Advanced Systems Technologies, Inc., (ASTI) designs and fabricates process control systems, specializing in industrial gas handling, blending, generating and purifying systems, and biogas and fuel blending/mixing systems. ASTI's mission is to provide at reasonable prices, high quality engineering design services and fabricated systems to industrial gas manufacturers and end users throughout the world. ASTI can enter a project at any point: from complete turn-key systems specification through fabrication, installation, and start-up, to simple fabrication from customer supplied prints and specifications.

Air Products and Chemicals, Inc.

John Hoffmann 11444Tel: (314) 995-3361Year Established: 1940Lackland RoadFax: (314) 995-3500# of Farm Projects: 14Saint Louis, MO 63146Email: hoffmaje@airproducts.com# of Biogas Projects: 20

Website: www.airproducts.com

Air Products and Chemicals, Inc. offers a broad portfolio of gas products, technologies, and engineering expertise that can help improve the productivity, economics, and safety of many bioenergy processes. Whether involved with an existing operation or developing a new project, they can help. As one of the world's leading suppliers of oxygen, nitrogen, hydrogen, and other industrial gases, Air Products and Chemicals, Inc. can apply their know-how in combustion and gasification, cryogenics, gas clean-up and separations, power generation, and process optimization. Their Prism Membrane modules employ hollow fiber membranes which selectively separate methane from carbon dioxide molecules, providing a robust and dependable method of upgrading biogas streams to high purity methane.

American Refining Group, Inc.

Kenneth M. Tyger

Tel: (814) 368-1210

Year Established: 1881

77 North Kendall Avenue

Fax: (814) 368-1328

of Farm Projects: 40+

Bradford, PA 16701

Email: ktyger@amref.com

of Biogas Projects: N/A

Website: www.amref.com

The American Refining Group, Inc. (formerly the Kendall Refinery), manufacturers of Brad Penn Lubricants, located in Bradford, Pennsylvania is the oldest continuously running lube refinery in the world and the only fully integrated major refinery that processes 100% Pennsylvania Grade Crude Oil. In addition to producing a wide range of lubricants, we they are proud to be the manufacturer of the Brad Penn® Biogas Engine Oils, specifically designed and tailored for use in engines fueled by biogas generated from anaerobic digestion of manure, compost, or landfill residue. The Brad Penn® Biogas Engine Oils offer not only the sufficient levels of reserve alkalinity required to effectively neutralize acidic components generated by combustion of biogas, but also enhanced anti-wear and detergency to provide outstanding engine component protection as well as the potential for increased oil drain intervals.

Manufacturers/Distributors of System Components



Bio-Methatech Canada, Inc.

Tel: 418-933-7754 Year Established: 2006 Francois Guay # of Farm Projects: N/A 85 St-Paul West Fax: (514) 847-1125 # of Biogas Projects: 500+ Montreal, Quebec Email: mbrown@bio-methatech.com

Canada H2Y 3V4 Website: N/A

Bio-Methatech Canada, Inc. is a renewable energy company that designs, builds, installs, and supports the LIPP digester technology. The LIPP technology has over 35 years of operational experience and 500+ biogas systems in farming, food waste, and municipal waste water industries in 80 countries worldwide. The LIPP patented construction process enables the automated and efficient installation of high-quality digester systems that have a long service life. The unique LIPP methanization technology allows for continuous and uninterrupted operation focused on maximizing the delivery of a system's various product revenue

Clear Water Technologies, Inc.

Tel: (763) 783-7344 Year Established: 1986 Tim France # of Farm Projects: 3 7800 Main Street Fax: (763) 571-3372 # of Biogas Projects: 4 Minneapolis, MN 55432 Email: admin@CWTIUSA.com

Website: www.CWTIUSA.COM

Clean Water Technologies, Inc. provides a patented process which eliminates the hydrogen sulfide while increasing the methane generated in an anaerobic digester. The process also reduces the amount of sludge.

Conserval Systems, Inc.

Tel: (716) 835-4903 Year Established: 1990 Fax: (716) 835-4904 # of Farm Projects: 50 4242 Ridge Lea Road, Unit 28 Email: infowallusa@solarwall.com # of Biogas Projects: 2 Buffalo, NY 14226

Website: www.solardrying.com

Conserval Systems, Inc. produces a solar drying system to dry manure. The Solarwall panels heat air which is passed over the manure removing the moisture; dried manure can then be sold as a fertilizer.

EPG Companies

Tel: (763) 424-2613 Year Established: 1985 **Gregory Burns** Fax: N/A # of Farm Projects: N/A 19900 HWY, 81 Email: gburns@epgco.com # of Biogas Projects: N/A Rogers, MN 55374

Website: epgco.com

EPG is a manufacturer of portable skid mounted, solar powered, active biogas flare systems.

Fluid Components International

Randall J. Brown Tel: (760) 744-6950 Year Established: 1964 Fax: (760) 736-6250 # of Farm Projects: N/A 1755 La Costa Meadows Dr. # of Biogas Projects: N/A Email: randyb@fluidcomponents.com San Marcos, CA 92078

Website: www.fluidcomponents.com

Fluid Components International (FCI) is a leading manufacturer of gas flow meters for digester gases, biogas, and all fuel gases for applications in wastewater treatment facilities, landfills, farm waste-to-energy, and ag-to-energy.

Manufacturers/Distributors of System Components



Flotech Services NA Ltd.

Sean Mezei Tel: (604) 805-8532 Year Established: 1986
#253-5489 Byrne Rd. Fax: N/A # of Farm Projects: 18
Burnaby, British Columbia, Email: sean.mezei@flotech.com # of Projects: 40

Canada V5J 3J1 Website: www.flotech.com

Biogas Flotech Services NA Ltd. and its subsidiary Greenlane Biogas are the leading worldwide developer and supplier of technology for upgrading biogas to renewable natural gas for use in pipelines and vehicle fuel. Flotech has more than 20 years of experience upgrading biogas, with installations in Canada, France, Germany, Iceland, Japan, New Zealand, South Korea, Spain, Sweden, and the United States. Flotech's process uses a water scrubber process in combination with our proprietary PSA / TSA system to reliably deliver high quality biomethane. Flotech also backs up it systems with the most comprehensive guarantees available in the market.

Garrison Minerals, LLC

Mac McCrelessTel: (720) 389-7609Year Established: 20082054 BroadwayFax: (720) 889-9470# of Farm Projects: N/ADenver, CO 80205Email: mac@garrisonminerals.com# of Biogas Projects: N/A

Website: www.garrisonminerals.com

Garrison Minerals, LLC provides various chemicals for anaerobic digestion systems, specifically pH adjustment, (i.e., magnesium hydroxide, etc.).

Gateway Products Group

Gregg Schneider

Tel: (636) 922-5092

Year Established: 2001

11220 Wilshire Chase Dr.

Fax: (636) 922-5093

of Farm Projects: N/A

Duluth, GA 30097

Email: g.schneider@gpgsparkplugs.com

of Biogas Projects: 100

Website: www.gpgsparkplugs.com

Gateway Products Group specializes in Beru and GPG spark plugs for natural gas, landfill, and biogas applications.

Guild Associates, Inc.

Mike MitaritenTel: (908) 752-6420Year Established: 19815750 Shier-Rings RoadFax: (614) 798-1972# of Farm Projects: 5Dublin, OH 43016Email: mike@moleculargate.com# of Biogas Projects: 18

Website: www.moleculargate.com

Guild Associates, Inc. is a leading supplier of compression and gas clean-up systems for biogas to pipeline/LNG/CNG quality under the Molecular Gate technology. The systems are noted for the use of fully regenerated media (that does not require replacement) and the single step removal of any levels of water vapor, H2S, siloxanes, volatile organic compounds (VOC), and CO2.

HRS Heat Exchangers

Carlos Cobian

Tel: (623) 913-4328

Year Established: 2003

5035 N. 55th Avenue, Suite 6

Fax: (623) 939-6168

Glendale, AZ 85301

Fmail: carlos@hrs-americas.com

of Biogas Projects: 100+

Website: www.hrs-heatexchangers.com

HRS Heat Exchangers manufactures and sells heat exchangers for sludge (sludge-water and sludge – sludge for energy recovery), sludge pasteurization, and evaporation technology for concentration of digestate.

Manufacturers/Distributors of System Components



Industrial Solutions, USA

Sioux Falls, SD 57108

Tel: (605) 274-9295 Kirk E. Jeffries 5115 S. Rolling Green Ave., Ste #211 Fax: (605) 275-0072

Email: kjeffries@industrialsolutionsusa.com

Website: www.industrialsolutionsusa.com

Industrial Solutions, USA provides thick 100% solids sprayed on monolithic corrosion resistant, abrasion/impact resistant, chemical resistant, anti-static, antimicrobial linings. Their linings can be sprayed over geotextile, concrete, steel, wood, or any other substrate to form an impervious primary and/or secondary lining containment system. The lining is tack free in one minute and can be pigmented any color. Their linings are EPA-SPCC compliant Title 40, Part 112.

Infilco Degrémont Technologies Ltd.

Jongmin Kim Tel: (804) 756-7623 8007 Discovery Drive Fax: (804) 756-7643 Richmond, VA 23229

Email: jongmin.kim@infilcodegremont.com Website: www.degremont-technologies.com # of Farm Projects: N/A # of Biogas Projects: 300+

Year Established: 1894

Year Established: 2004

of Farm Projects: N/A

of Biogas Projects: N/A

Degrémont Technologies Ltd. provides high-performance livestock waste treatment solutions for any size waste flow and virtually any influent condition. They are involved in every stage of a project – from process design to equipment supply to operations training. Careful evaluation of each application means our customers receive the most efficient combination of technology and products at the lowest overall cost. The design engineers look at the entire treatment line to find ways to improve waste treatment efficiency, thus minimizing solids to be disposed and maximizing biogas generation to ensure faster return on investment. They also handle drinking water treatment and wastewater applications like primary, secondary, wastewater reuse, and stormwater management for municipalities around the country. Industries, too, benefit from diverse solutions, including physical-chemical treatment, packed-bed demineralization, ion exchange, reverse osmosis, and aerobic/anaerobic biological systems.

Innovative Environmental Products

Frank Miller Tel: (585) 346-3789 28 Main Street. PO Box 72 Fax: (585) 346-9061

Livonia, NY 14487 Email: FCMiller-IEP@rochester.rr.com

Website: www.iepworld.com

Year Established: 2001 # of Farm Projects: N/A # of Biogas Projects: N/A

Year Established: 2001

Innovative Environmental Products provides a patented process for the capture and control of manure nutrients in liquid manure pre or post digestion. They can achieve remarkable manure nutrient and solids reduction. Levels of removal of constituents from the manure in the filtrate include: phosphate – 98+% reduction; organic nitrogen – 90% reduction; fecal matter – 99% reduction; and manure solids - >95% reduction.

INTEGRITY Ag Systems

Tim Rensch Tel: (717) 261-5711 4755 Innovation Way Fax: (717) 263-7399

Chambersburg, PA 17201 Website: www.integrityagsystems.com

of Farm Projects: 10 # of Biogas Projects: 10 Email: trensch@integrityagsystems.com

INTEGRITY Ag Systems provides a wide array of customizable clean-tech products, equipment, and solutions for cost-effective manure management. INTEGRITY systems help farmers reduce reliance on non-renewable fossil fuels through anaerobic digester and supporting technology. INTEGRITY systems help farmers more effectively protect surrounding watersheds from nutrient overloading and control odor for better community relations.

Manufacturers/Distributors of System Components



John Zink Company, LLC

Tel: (918) 234 2791 Year Established: 1929 Aron Katz # of Farm Projects: N/A 11920 East Apache Fax: N/A Tulsa, OK 74116 # of Biogas Projects: 800+ Email: Aron.Katz@johnzink.com

Website: www.johnzink.com

With more than 800 biogas flare systems in operation, John Zink Company, LLC is the leader in advanced landfill flare systems. We offer standard or custom landfill systems including enclosed, elevated, and rental systems, blower skids, and our Ultra Low Emissions (ZULE) flare system which offers the lowest emissions and highest destruction efficiency available. John Zink also provides advanced technology for CDM and carbon credit projects in the landfill, waste water, and agricultural markets. We have engineering representatives, licensees, and distributors in more than 60 countries, and are able to manufacture and offer design and sales support locally.

Karl Dungs, Inc.

Tel: (651) 792-8919 Year Established: 1997 Erik Tate # of Farm Projects: 6+ 524 Apollo Drive Fax: (651) 792-8912 # of Biogas Projects: 6+ Lino Lakes, MN 55014 Email: etate@karldungsusa.com

Website: www.dungs.com

Karl Dungs, Inc. is a wholly owned subsidiary of Karl Dungs GmbH, a German manufacturer of gas controls. Our product line consists of fuel supply controls, suitable for Bio Methane, including: Manual and Automatic Shut-off Valves, Gas Filters, Pressure Reducing and Zero Governor Regulators. Dungs can also supply "Pre-Engineered" value added fuel trains from 1" (DN25) - 8" (DN200). Inventory in the U.S. carrying UL/UR, FM, CSA, and/or CE approvals, suitable for NFPA37, UL2200, and/or CSA B149.1 & B149.3. They service North and South American markets.

Kompogas AG

W. Schmid Rohrstrasse 36 Tel: (411) 809-7100 Year Established: 1991 # of Farm Projects: 3 Glattbrugg, CH-8152 Fax: (411) 809-7110 # of Biogas Projects: 30 Email: info@kompogas.ch

Website: www.kompogas.ch

Kompogas AG developed an anaerobic process for the fermentation of biogenous yard and kitchen waste combined with energy production. Waste recycling using the Kompogas process offers numerous advantages. The end products obtained from the process include CO2-neutral renewable energy (biogas), as well as high-quality compost and liquid fertilizer. The biogas recovered provides energy in the form of heat, electric power, and vehicle fuel.

LANDTEC North America, Inc.

Tel: (909) 783-3636 Year Established: 1991 David Millan # of Farm Projects: 22 850 S. Via Lata, Suite 112 Fax: (909) 825-0591 # of Biogas Projects: 300+ Colton, CA 92324 Email: dmillan@landtecna.com

Website: www.landtecna.com

The LANDTEC system is a comprehensive solution that begins with in-line gas flow measurement and sampling devices, includes portable gas analyzers, continuous stationary monitoring systems, and world class analytical software. Decades of experience and field proven technology evolved into the means to maximize gas production and still maintain a healthy anaerobic process. Given the dynamic nature of biogas generation, constant evaluation of this process is necessary for success. The LANDTEC system provides the tools for this continuous cycle. The LANDTEC system expedites the process of submitting reports for: CDM Carbon Credit exchange; Gas-to-Energy gas production; and Environmental Compliance.

Manufacturers/Distributors of System Components



Maintenance-free Exteriors

Tel: (800) 738-0000 Year Established: 1992 Ken Vaughn # of Farm Projects: N/A P.O. Box 1639 Fax: (888) 360-9752 Port Aransas, TX 78373 # of Biogas Projects: N/A Email: rhinoken@gmail.com

Website: www.rhinomembranes.com

Maintenance-free Exteriors authorized sales and installation of Rhino waterproofing membranes for in situ geomembrane pits, tanks, ponds, lagoons, lakes, and more. They offer support for sales, design, building, and renovation. They can do it for clients or set clients up to install their own monolithic liners and coatings. Corrosion prevention with Rhino Membranes are VOC free, monolithic, seamless, UV resistant, sustainable, and last forever. They offer free estimates,

Measurement Technology, Ltd

Year Established: 1981 Phil Dixon Tel: +441582435600 # of Farm Projects: 500 3413 N. Sam Houston Parkway W., Fax: +441582400901 Suite 210 # of Biogas Projects: N/A

Email: hitechsales@cooperindustries.com Houston, TX 77086

Website: www.mtl-inst.com

For over 30 years, Measurement Technology, Ltd (MTL) has been a world leader specializing in the design and manufacture of continuous online biogas analyzers, wireless communications, and surge protection equipment for anaerobic digester plant installations. Instruments manufactured include portable, fixed, and custom built analyzers, complete with sample conditioning systems. As part of the global Cooper Industries Group and our regional offices and global distributor network, we are well positioned to assist customers wherever they may be.

Melfast

Tel: (800) 486-0045 Victoria Lim Year Established: N/A # of Farm Projects: N/A Fairfield, NJ 07004 Fax: (973) 227-4024 # of Biogas Projects: N/A Email: victoria@melfast.com

Website: www.melfast.com

Melfast is a distributor of fasteners and hardware who offers a wide range of hardware items and materials such as fasteners, screws, nuts, bolts, heads, and drives for all industries and applications. For over 25 years, Melfast has provided many industries with its highest quality fasteners, screws, nuts, bolts, heads, drives, and other hardware items. Industries served include: Alternative/Renewable Energy, Water Treatment, Steel Fabricators, Railroad Construction, Rackmount Manufacturers, Pump Manufacturers, Modular Building, Conveyor Systems and Dry-Cleaning, Mining Equipment, Highway Construction, Pallet Racking Hardware, Water Purification Plants, and Train Accessories and Components. Wholesale, bulk, and custom orders are available, including those that are difficult or one-of-a-kind items.

Modern Technology Methods, LLC

Year Established: 2009 Billy Ivy Tel: (404) 287-2624 # of Farm Projects: 3 P.O. Box 3292 Fax: (404) 287-2624 Thompson Bridge Road #276 # of Biogas Projects: 3 Email: info@moderntechnologymethods.com

Gainesville, GA 30506 Website: N/A

Modern Technology Methods, LLC, a 100% American owned company, offers turn-key thermophilic anaerobic digestion systems designed to cleanly and efficiently convert chicken waste into high percentage methane (biogas) and fertilizer with commercial, industrial, and agricultural applications.

Manufacturers/Distributors of System Components



NETZSCH Pumps North America, LLC

Tel: (610) 363-8010 Year Established: N/A John Yatcilla Fax: (610) 363-0971 # of Farm Projects: N/A 119 Pickering Way # of Biogas Projects: N/A Email: marketing@netzsch.com Exton, PA 19341

Website: www.netzschusa.com

NETZSCH Pumps North America, LLC is the North American subsidiary of the globally operating group of NETZSCH companies. For over five decades NETZSCH has been manufacturing and supplying NEMO® Progressing Cavity Pumps and TORNADO® Rotary Lobe Pumps, screw pumps, macerators/grinders, dosing systems and accessory equipment for custom built and challenging solutions for your applications. As the world's market leader of Progressive Cavity Pumps our innovative, premium quality products are known and valued all over the world.

Norton Environmental Equipment, Ltd.

Tel: (216) 447-0070 Year Established: 2000 Steven Viny Fax: N/A # of Farm Projects: N/A 6200 Rockside Woods Blvd. Email: sviny@daladgroup.com # of Biogas Projects: N/A Independence, OH 44131

Website: N/A

Norton Environmental Equipment Company, Ltd. is the exclusive distributor for Komptech composting equipment in North America. Komptech's BFSC system is for digesting on-farm waste, including compost production and gas recovery. Several such systems have been installed and are operating successfully in Europe.

OMI Industries, Inc.

Stephen Lattis Tel: (847) 304-9111 Year Established: 1988 Fax: (847) 304-0989 # of Farm Projects: N/A 1 Corporate Drive, Suite 100 # of Biogas Projects: N/A Email: lattis@omi-industries.com Longrove, IL 60047

Website: www.omi-industries.com

OMI Industries is a leading developer of safe and effective industrial odor management solutions for a wide variety of applications.

Organic Waste Systems (OWS), Inc.

Norma McDonald Tel: (513) 535-6760 Year Established: 1985 Fax: (513) 233-3395 # of Farm Projects: 4 7155 Five Mile Road # of Biogas Projects: 28 Email: norma.mcdonald@ows.be Cincinnati, OH 45230

Website: www.ows.be

Organic Waste Systems (OWS) is composed of two divisions: (1) laboratory services for biogas potential testing and biochemical monitoring, and (2) biogas plant design build services including dry, high solids digestion.

Pneumatech, LLC

Tel: (262) 658-4300 Year Established: 1966 Jim Donohue Fax: (262) 658-1945 # of Farm Projects: 100+ 4909 70th Avenue # of Biogas Projects: 100+ Email: jdonohue@pneumatech.com Kenosha, WI 53144

Website: www.pneumatech.com

Pneumatech, LLC is a manufacturer of biogas dryers and treatments equipment.

Manufacturers/Distributors of System Components



Pro-Act Biotech

Bill Donohue Tel: (800) 772-3775 Year Established: 1999 Fax: (401) 633-6270 # of Farm Projects: 100+ P.O. Box 345 Email: Bill@proactbiotech.com # of Biogas Projects: N/A Warren, RI 02885

Website: www.proactbiotech.com

Pro-Act Biotech, the leading supplier of bio-augmentation products, provides highly effective waste treatment systems for the concentrated animal feeding operation (CAFO) and the aquaculture industry.

ProSonix, LLC

Tom Podwell Tel: (800) 849-1130 Year Established: 2006 P.O. Box 26676 Fax: (414) 755-7177 # of Farm Projects: 10+ Milwaukee, WI 53226-0676 Email: tpodwell@psxllc.com # of Biogas Projects: 10+

Website: www.pro-sonix.com

ProSonix, LLC specializes in the design and manufacture of Direct Steam Injection heating solutions for water, slurry, sludge, and aggressive fluids. Their products are capable of handling difficult to pump fluids with high viscosity or high solids, and contain fibrous materials. They have expertise in industrial and municipal wastewater, anaerobic digestion, and biogas recovery.

Proteus Texas Power

Ken Kelley Tel: (806) 354-4970 Year Established: 1993 8101 SW 34th Avenue Fax: (806) 354-4997 # of Farm Projects: 1 Amarillo, TX 79121 Email: kkelley@jbkweb.com # of Biogas Projects: 2

Website: www.jbkweb.com

Proteus Texas Power comprises experts in natural gas transportation, marketing, and project development.

Renewable Carbon Management, LLC

Tel: (320) 253-5076 Jim McNelly Year Established: 1975 44 28th Avenue North, Suite J Fax: (320) 253-4976 # of Farm Projects: N/A Saint Cloud, MN 56303 Email: rcm@composter.com # of Biogas Projects: N/A

Website: www.composter.com

Since 1992, Renewable Carbon Management, LLC has designed and built in-vessel, containerized intermodal based digestion systems, and aerobic and dry anaerobic digesters with heat exchange, for managing a variety of biomass residuals, including wastewater treatment solids, manure, and food scraps.

Ro-Flo Compressors, LLC

Dennis Wacker Tel: (847) 421-4862 Year Established: 2007 Fax: (920) 574-2654 # of Farm Projects: N/A 2611 E. Winslow Avenue Email: dwacker@roflocompressors.com # of Biogas Projects: 300+ Appleton, WI 60004

Website: www.roflocompressors.com

Ro-Flo Compressors, LLC is the leading supplier of rotary sliding vane compressors to the Oil and Gas, Biogas, and Industrial markets. Ro-Flo's proven designs are in service in over 40 countries. Ro-Flo applications compress the most challenging gas streams in the world's most difficult locations. Ro-Flo's Rapid Ship™ programs yield same day parts shipments, two-day lead on select compressor models, and best-in-class lead times on build-to-order compressors. Recognized for the ability to handle wet and corrosive gas streams, Ro-Flo is the acknowledged compression technology choice for the "nastiest" gas. Ro-Flo's Rotary Test Center (RTC) is capable of objective performance testing of compressors, pumps, turbo expanders and other equipment. The RTC offers rapid and expert response to test inquiries and projects.

Manufacturers/Distributors of System Components



Sage Metering, Inc.

Bob SteinbergTel: (831) 242-2030Year Established: 20028 Harris Ct. D-1Fax: (831) 655-4965# of Farm Projects: 12Monterey, CA 93940Email: bob@sagemetering.com# of Biogas Projects: 36

Website: www.sagemetering.com

Sage Metering, Inc. manufactures high performance NIST Traceable Thermal Mass Flow Meters for digester gas, biogas, and landfill gas. The popular Sage Prime Flow Meter is easy to install and provides a display of instantaneous flow rate, totalized flow (consumption), and temperature; as well as 4-20 ma outputs of flow rate, pulsed outputs of totalized flow, and modbus[®] communication. Sage has many unique features and diagnostics, such as an in situ "field zero calibration check" that takes only one minute to check the sensor's performance, to verify that the sensor is clean, and to assure that there is no shift or drift in the flow meter. In addition, the Sage technology has tremendous sensitivity with negligible pressure drop, and hence can detect extremely low flow rates, typical of landfill gas and biogas applications. Sage Flow Meters feature a turn down of at least 100 to 1 with resolution of 1000 to 1.

Scott Equipment Company

Pete Calderon Tel: (817) 819-8937 Year Established: 1966
605 4th Avenue NW Fax: (952) 758-4377 # of Farm Projects: N/A
New Prague, MN 56071 Email: # of Biogas Projects: N/A

pete.calderon@scottequipment.com **Website:** www.turborecycling.com

Scott Equipment Company is a manufacturer of product de-packaging equipment that separates organic food waste from packaging for use in anaerobic digesters for methane production and/or compost. The separator can process up to 20 ton per hour of wet or dry organic food waste.

Spencer Turbine Company

 Chet Adamczyk
 Tel: (860) 688-8361
 Year Established: 1892

 600 Day Hill Rd
 Fax: N/A
 # of Farm Projects: 10

 Windsor, CT 06095
 Email:
 # of Biogas Projects: 400

cadamczyk@spencerturbine.com **Website:** www.spencerturbine.com

Spencer Turbine Company offers a wide selection of gas boosting blowers to include cast, hermetically sealed, and regenerative units. Capabilities include turn-key, gas filtering, and boosting skids to include all controls.

streisal GmbH

Peter Starz

Tel: +49-7522-80450

Year Established: 1988

Pettermandstraße 2

Fax: +49-7522-707965-0

Württemberg, D-88239

Fax: +49-7522-707965-0

of Farm Projects: 800

of Biogas Projects: 700

Website: www.streisal.de

Founded in 1988 as a manufacturer of submersible motors, Streisal GmbH develops, manufactures, and globally markets innovative agitators and mixing systems for biogas plants, wastewater technology and industrial applications, such as:. Submersible mixers from 1-18,5 kW(medium and slow-speed, with propeller diameters of up to 2,8 m), rod agitators, long-axis agitators, and vertical agitators. Based on many years of experience and knowledge gained from numerous mixing experiments in their fluid mechanical laboratory, they are able to supply custom solutions for unusual problems beside a comprehensive range of standard components. Services include expert advice, professional servicing and maintenance, and spare parts supply and repair.

Manufacturers/Distributors of System Components



SUMA America, Inc.

Eugene Smith 855 North Wood Dale Rd., Ste. A

Wood Dale, IL 60191

Tel: (312) 945-9049 Fax: (630) 354-6840 Email: gene@gosuma.com Website: www.gosuma.com

Year Established: 1957 # of Farm Projects: 1000+ # of Biogas Projects: 1000+

Founded in Germany in 1957 as a manufacturer of mixers for manure handling, SUMA entered the biogas market at its conception in Europe and has grown with it. Today, with subsidiaries, partner companies or representatives in the USA, Canada, Brazil and Thailand, SUMA is a global leader and innovator of mixers and agitators for anaerobic digesters and related applications. SUMA products are installed in thousands of installations in more than 20 countries in Europe, Turkey, the USA, Canada, Brazil, Thailand, Indonesia, South Korea, Japan and China. In North America, SUMA is well established to support its customers, with multiple inventory points as well as factory trained service personnel. Based on decades of experience and dedication to the biogas market, SUMA provides customers with the most reliable and cost effective mixing solutions possible.

Team Gemini

Douglas Haughn 121 S. Orange Avenue Suite 1600 N

Orlando, FL 32801

Tel: (407) 459-8550

Fax: N/A Email:

doug.haughn@teamgemini.us Website: www.teamgemini.us/

Year Established: 2011 # of Farm Projects: N/A # of Biogas Projects: N/A

Team Gemini LLC (TG) is a sustainable project design and development company that develops community-based technology clusters featuring sustainable agriculture, renewable energy, and resource recovery and recycling. TG fulfills the design and development; engages the relevant manufacturers, contractors, and sub-contractors; and brings together the stakeholders and experts needed for implementation and long-term management of each project. TG supports system design on complete AD systems and provider of AD components like tanks, mixers, vacuum systems, pre- and post-treatment of feedstock, and affluent.

Vaughan Company, Inc.

Tel: (360) 249-4042 Mike Panther 364 Monte-Elma Road Fax: (360) 249-6155

Montesano, WA 98563 Email: mpanther@chopperpumps.com

Website: www.chopperpumps.com

Vaughan Company, Inc. designs and builds complete mixing systems for methane digesters and sludge-storage tanks. It also manufactures a complete line of heavy-duty chopper pumps.

Vincent Corporation

Carolyn Fries Tel: (813) 248-2650 2810 E 5th Avenue Fax: N/A Tampa, FL 33605 Email: carolyn@vincentcorp.com Website: www.vincentcorp.com

Year Established: 1931 # of Farm Projects: 25 # of Biogas Projects: 30

Year Established: 1956

of Farm Projects: 1000

of Biogas Projects: 2000

Established in 1931, Vincent Corporation engineers and manufactures dewatering screw presses and ancillary equipment for the Food & Beverage, Pulp & Paper, Plastics Recycling, Energy and other industries. Screw presses are machines that operate in a continuous mode to squeeze liquid out of organic (and some inorganic) materials. A sustainability enabler, Vincent products operate in more than 200 green minded applications to reuse, recover and recycle materials around the globe.

AgSTAR Vendor Directory 2015 Manufacturers/Distributors of System Components



Vogelsang

Tel: (330) 296-3820 x301 Year Established: 1929 Rich Owens Fax: (330) 296-4113 # of Farm Projects: 1200+ 7966 SR-44 Email: richo@vogelsangusa.com # of Biogas Projects: 2000+ Ravenna, OH 44266

Website: www.vogelsangusa.com

As a World leader, manufacturing high quality, extremely dependable sludge and manure handling products for the world's industrial, municipal, and agricultural markets. Our positive displacement, rotary lobe pump has pulsation free operation through the entire range of pumping. Suction lift to 25ft, run dry, bi-directional, and flows up to 5,500 US gpm & 232 PSI. RotaCut, effectively reduces solids to small particles for better digestion. It uses self-sharpening blades, multiple cutter screen configurations, and a rock trap for high efficiency. X-Ripper provides larger solids grinding like entire hogs & food waste down to digestible size solids. EnergyJet & Quickmix provide dry conferment mixing without a pit with increased gas production for food waste and silage. BioCrack high voltage cell lysing provides higher electro kinetic breakdown of cells for higher gas production.

Xebec Adsorption, Inc.

Tel: (450) 979-8728 Year Established: 1967 Valerie Sorschak Fax: (450) 979-7869 # of Farm Projects: 7 730 Boul Industrie Blainville, Quebec, J7C 3V4 Email: vsorschak@xebecinc.com # of Biogas Projects: 13

Canada Website: www.xebecinc.com

Xebec Adsorption, Inc. is a global provider of biogas upgrading equipment. Xebec's mission is to ensure its customers receive the maximum revenue from their biogas stream whether it is from an anaerobic digester, landfill, or waste water plant. Xebec offers skid or containerized upgrading systems, and with its partners, engineering, procurement, and construction management (EPCM). Xebec's technology is based on a proven, rapid cycle PSA system which delivers high recovery and gas purity to pipeline specification. Benefits of Xebec's second generation Xebec's upgrading technology include a one step process to remove CO2, N2, O2, and H2O. Xebec's upgrading systems ensure low installation and operating costs while at the same time optimizing system uptime and availability.



Manufacturers/Distributors of Tanks

CST

 Dick Nelles
 Tel: (815) 756-1551

 345 Harvestore Drive
 Fax: (815) 756-1659

Email: dnelles@cstindustries.com

Website:

www.cstindustries.com/products/slurrystore

CST manufactures glass fused to steel tanks and pressurized roofs used in methane digester applications. Tanks are installed and serviced by authorized dealers.

Octaform

DeKalb, IL 60115

Lee DreverTel: (604) 408 0558Year Established: 1997520 - 885 Dunsmuir StreetFax: N/A# of Farm Projects: 6Vancouver, BC V6C1N5Email: lee.drever@octaform.com# of Biogas Projects: 6

Canada Website: info.octaform.com/biogastanks

Octaform is a PVC, stay-in-place concrete forming system that is ideal for the intense demands of anaerobic digestion. In one step, Octaform forms and protects concrete, leaving a built-in, watertight, and corrosion-resistant finish that is perfect for biogas tanks.

Team Gemini

Douglas Haughn 121 S. Orange Avenue Suite

1600 N

Orlando, FL 32801

Tel: (407) 459-8550

Fax: N/A
Email: doug.haughn@teamgemini.us
Website: www.teamgemini.us/

Year Established: 2011 # of Farm Projects: N/A

Year Established: 1945 # of Farm Projects: 17

of Biogas Projects: 53

of Biogas Projects: N/A

Team Gemini LLC (TG) is a sustainable project design and development company that develops community-based technology clusters featuring sustainable agriculture, renewable energy, and resource recovery and recycling. TG fulfills the design and development; engages the relevant manufacturers, contractors, and sub-contractors; and brings together the stakeholders and experts needed for implementation and long-term management of each project. TG provides turnkey designs and installation of LIPP tanks.



Publishers

BioCycle Magazine

Rill Ann Miller Tel: (610) 967-4135 63 S. Seventh Street Fax: (610) 967-1345 Emmaus, PA 18049

Website: www.biocycle.net

Year Established: 1960 # of Farm Projects: N/A # of Biogas Projects: N/A Email: biocycle@jgpress.com

Published since 1960, BioCycle is the magazine for advancing composting, anaerobic digestion, organics recycling and renewable energy. It is recognized as the foremost magazine on turning municipal, industrial, and agricultural wastes into valuable end products including renewable energy, soil conditioners, and compost. It produces editorial reports on anaerobic digestion, methane recovery, large-scale composting, community digesters, regulations, research, and process control.

Biomass Magazine

Howard Brockhouse Tel: (866) 746-8385 Year Established: 1995 # of Farm Projects: N/A 308 2nd Ave. N., Suite 304 Fax: (701) 746-5367 Grand Forks, ND 58203 # of Biogas Projects: N/A Email: service@bbiinternational.com

Website: www.biomassmagazine.com

Biomass Magazine is a monthly trade publication tailored to serve companies and organizations engaged in producing or utilizing biomass power and heat, advanced biofuels, biogas, wood pellets, and biobased chemicals. In addition to policy, regulation, project finance, technology and plant management, the publication maintains a core editorial focus on biomass logistics: generating, cultivating, collecting, transporting, processing, marketing, and procuring and utilizing sustainable biomass.



Year Established: 1995

Universities

Cornell University, The Worker Institute

Nellie J. Brown, MS, CIH 237 Main Street, Suite 1200 Buffalo, NY 14203

Tel: (716) 852-1444 Year Established: 1986 Fax: (716) 852-3802 # of Farm Projects: 11 # of Biogas Projects: 7 Email: njb7@cornell.edu

Website: www.ilr.cornell.edu/workerinstitute

The Worker Institute provides technically-based training and technical assistance services to assist management, labor, and medical and legal professionals in putting scientific and technical information to practical use in resolving work environment problems. Both training and technical assistance services are available on the safety and hazard assessment of farm digesters, including the manure handling system, anaerobic digester, and biogas handling system. Two hazard assessment documents developed for digester systems are available at the Cornell University Dairy Environmental Systems Program website: http://www.manuremanagement.cornell.edu/HTMLs/Safety.htm.

Rutgers University EcoComplex

Tel: (609) 499-3600 **David Specca** Bordentown, NJ 08505 Fax: (609) 499-3647

of Farm Projects: 3 # of Biogas Projects: 6 Email: specca@aesop.rutgers.edu

Website: ecocomplex.rutgers.edu

The Rutgers University EcoComplex Research and Development Center has expertise in biogas cleanup, alternative energy, biogas to fuel technologies, and cogeneration especially for greenhouse production. They can provide consulting services for project development.

University of Florida, Soil and Water Science Department

Tel: (352) 392-8699 Dr. Ann C. Wilkie Year Established: N/A P.O. Box 110960 Fax: (352) 392-7008 # of Farm Projects: N/A University of Florida - IFAS Email: acwilkie@ufl.edu # of Biogas Projects: N/A

Gainesville, FL 32611-0960 Website: soils.ifas.ufl.edu

Dr. Ann C. Wilkie (Professor, Soil and Water Science Department, University of Florida - Institute of Food and Agricultural Sciences) specializes in BioEnergy and Sustainable Technology, with particular emphasis on anaerobic microbiology and biomass to biofuel conversion. An internationally recognized expert in anaerobic digestion and biogas technology, Dr. Wilkie's research interests include: renewable energy production from biomass and organic residues; livestock waste management technology for odor control, bioenergy production, nutrient recovery and water quality improvement; feedstock co-digestion and diversion of food waste from landfills; biogas generation from bioethanol and biodiesel by-products; algal biotechnology for biofuel production and nutrient recovery; agricultural and industrial waste treatment, and greenhouse gas mitigation.

University of Massachusetts Amherst, Civil and Environmental Engineering **Department**

Year Established: N/A Tel: (413) 577-3272 Dr. Chul Park, Ph.D. # of Farm Projects: N/A 18 Marston Hall Fax: (413) 545-2202 Amherst, MA 01003 # of Biogas Projects: N/A Email: cpark@ecs.umass.edu

Website: cee.umass.edu